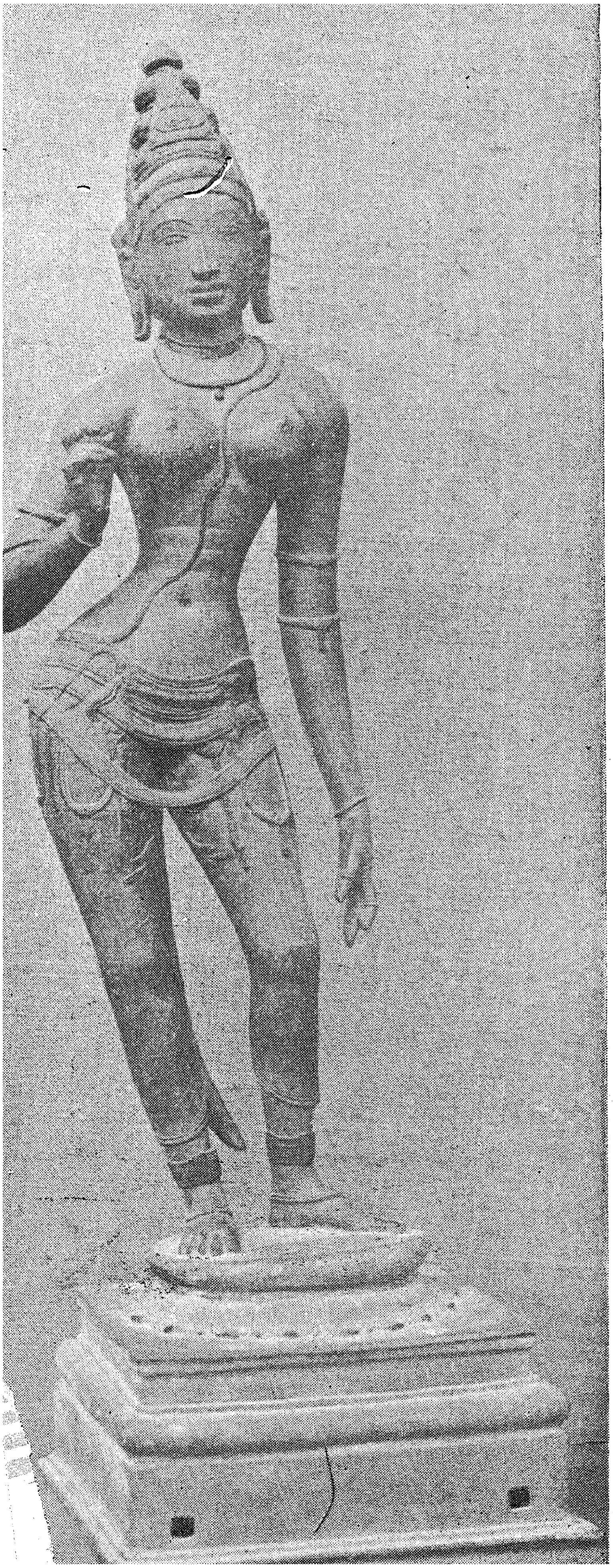

MADRAS Information

Vol. XIX APRIL 1965 No. 4

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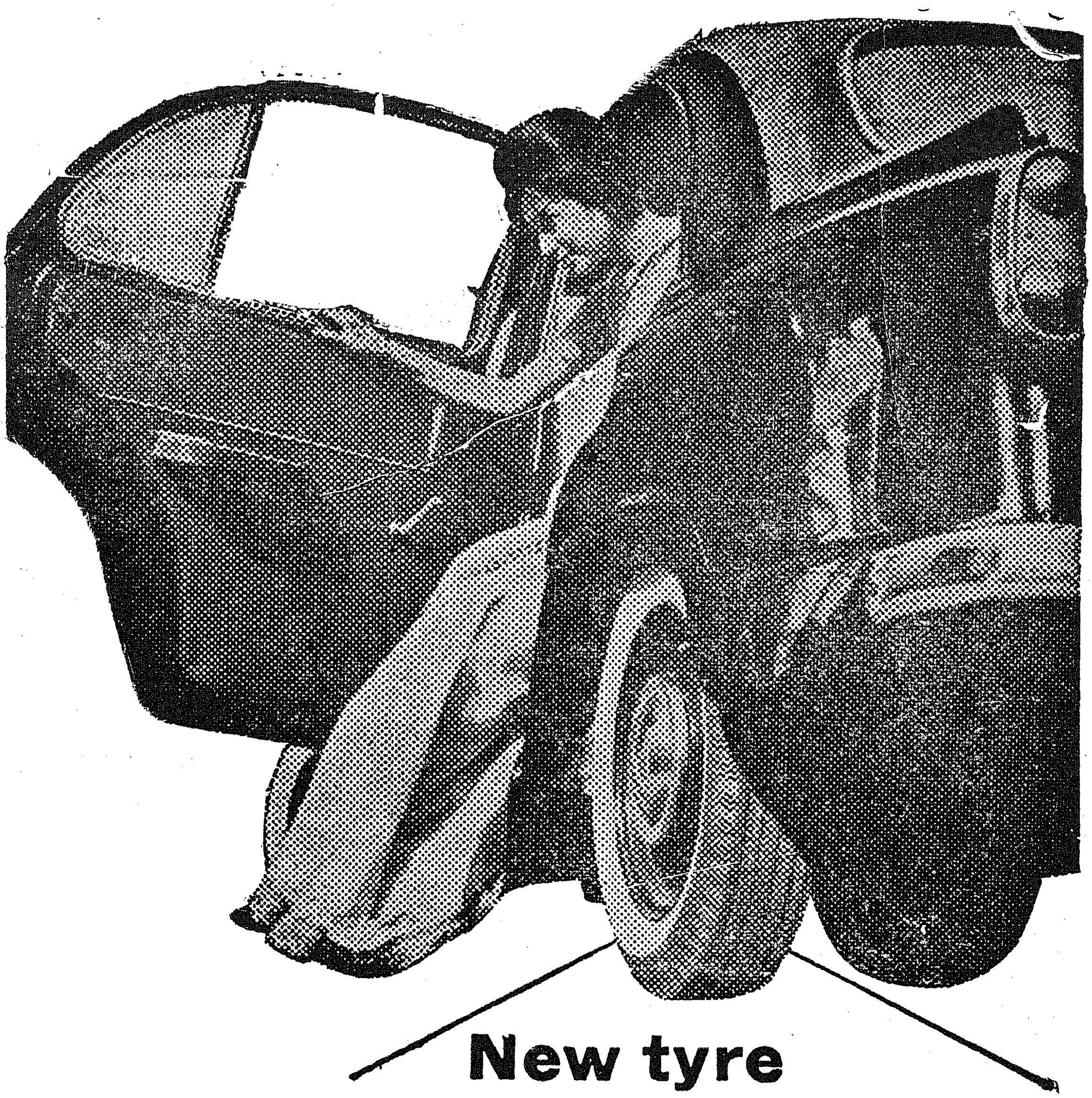
THIS MONTH'S COVER

COCONUT GROVE—COVALAM BEACH



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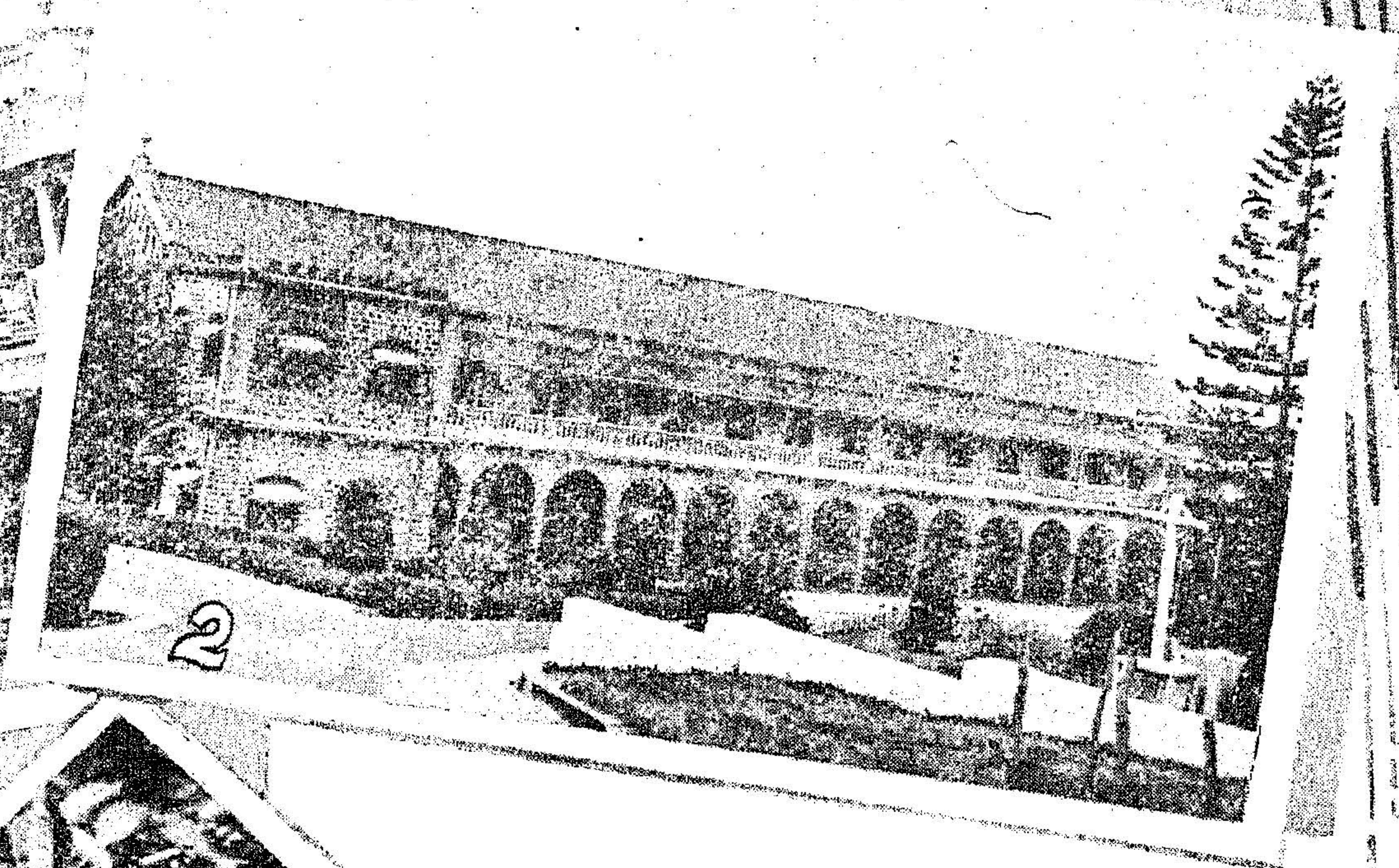
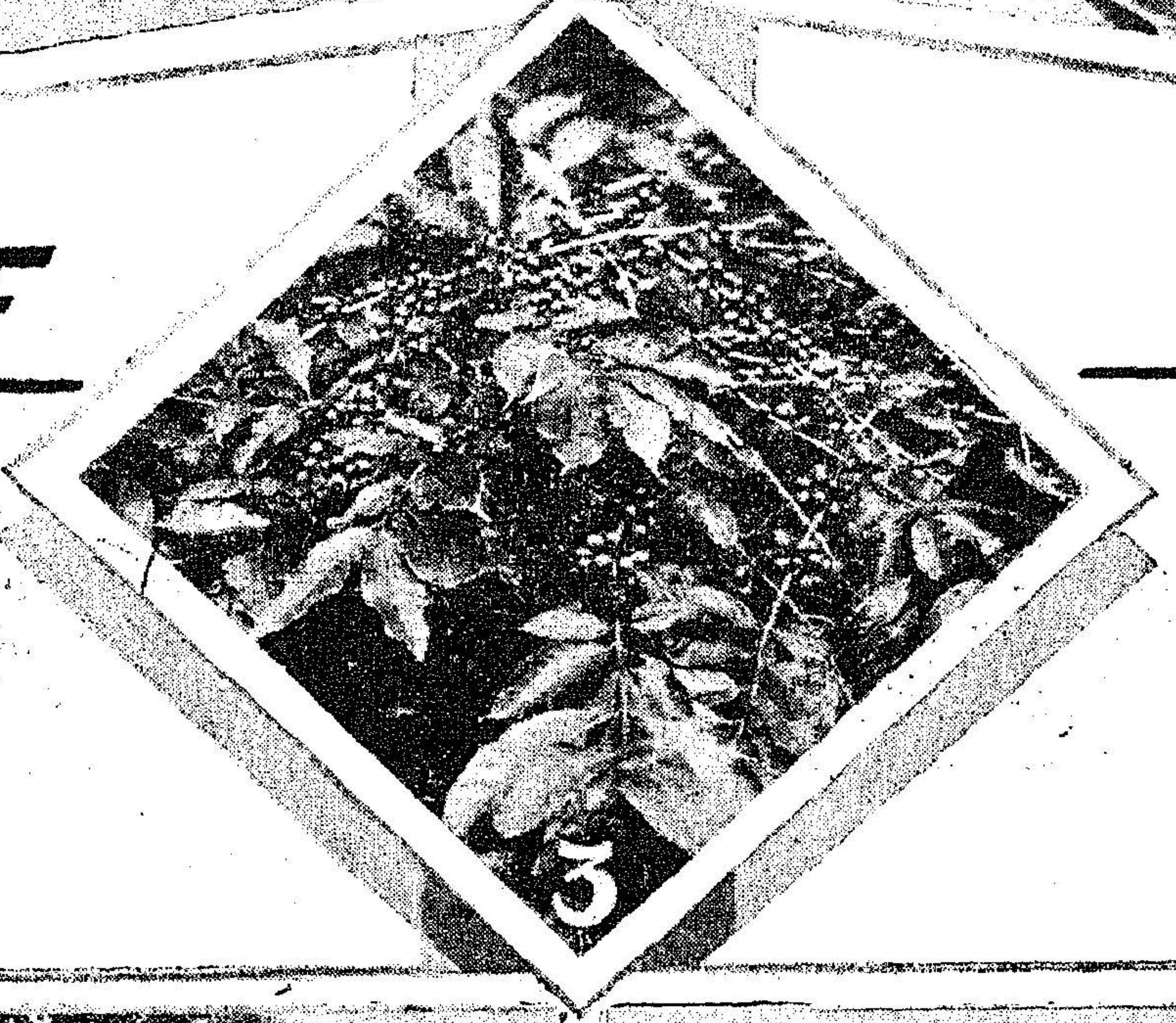
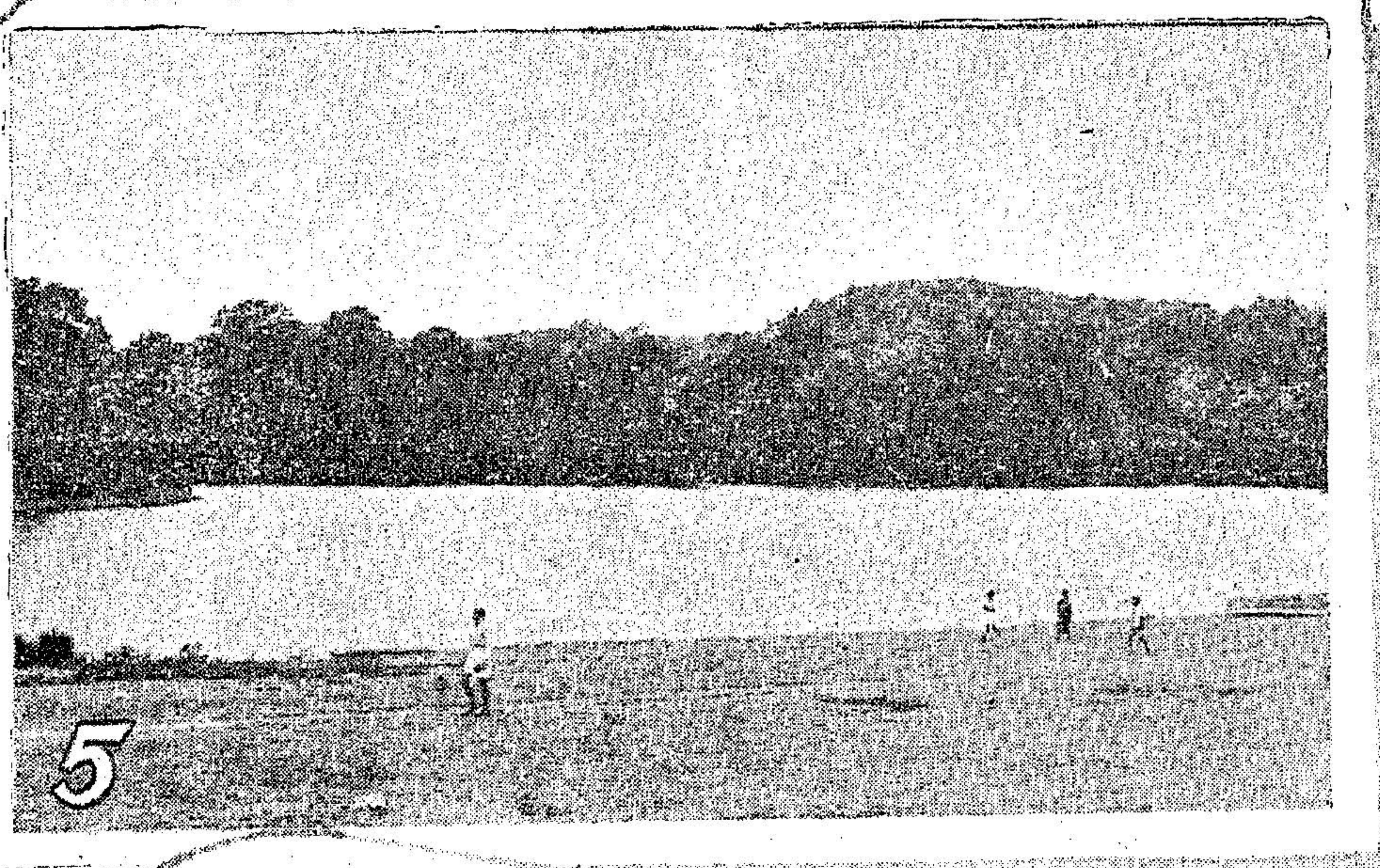
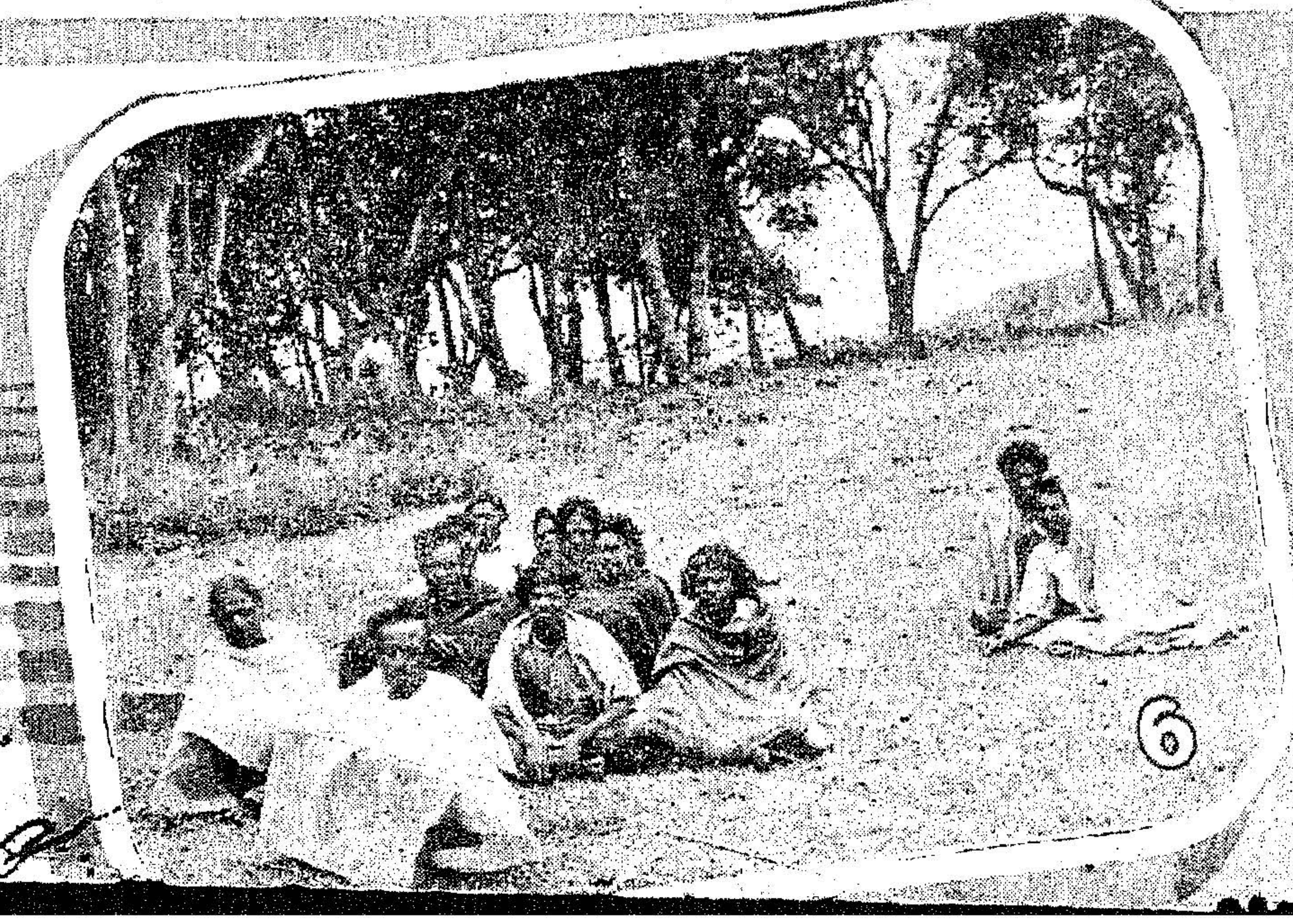


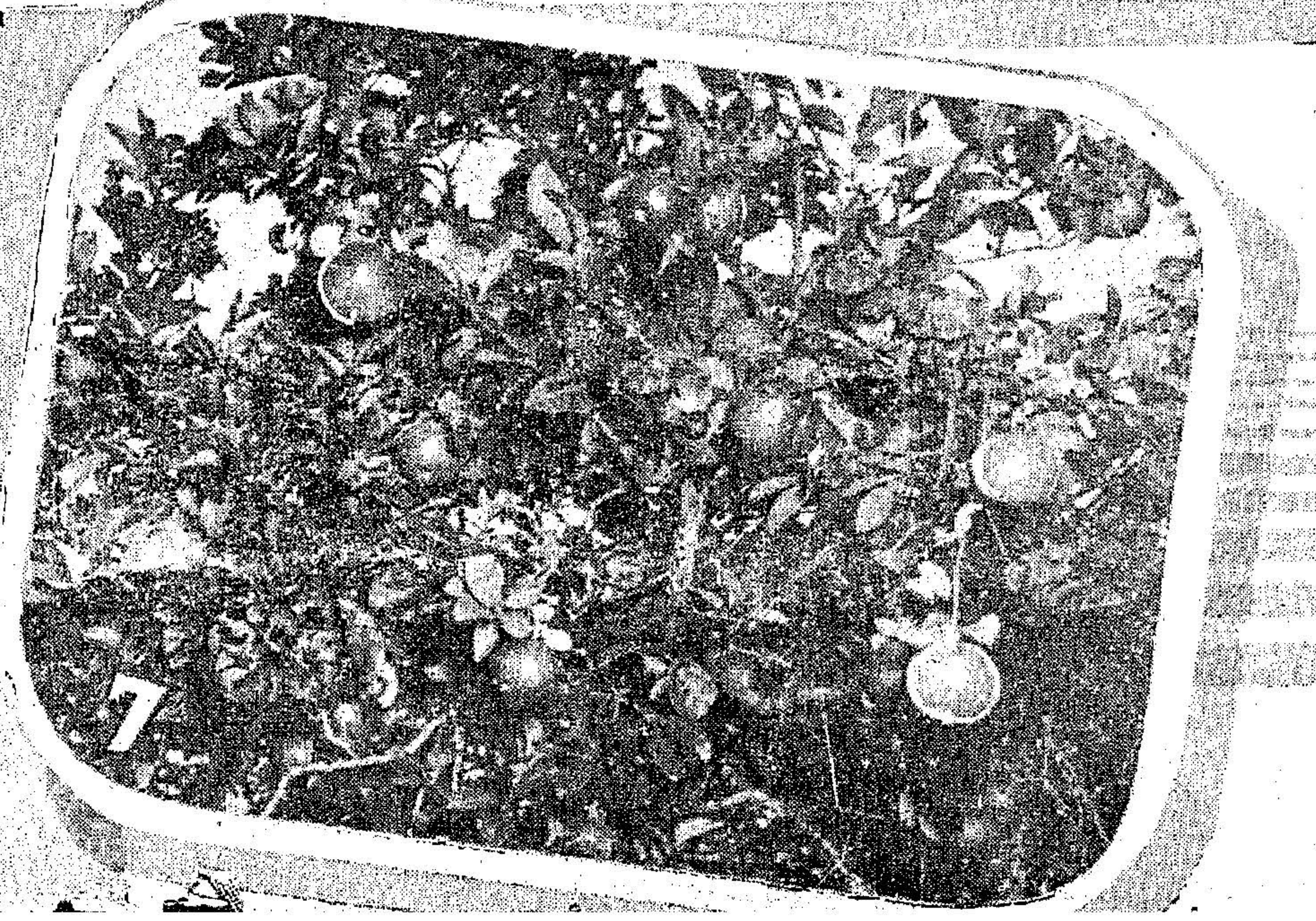
GLIMPSES OF YERCAUD



1. Market Square.
2. A view of the Montford School.
3. Coffee Plantations.
4. Mye Lady's Seat.
5. The Lake.
6. "Malaialis" tribal people of Yercaud.
7. An Orange Fruit garden.







EXHILARATING YERCAUD

In the present tempo of life there is little doubt that survival and periodic relaxation go together. It is good fortune of Madras State that nature has endowed her with the venues for such rest and recuperation. Yercaud is one of the finest smaller hill resorts. Those who cannot afford trips to Ootacamund, Kodaikanal and Kotagiri can very well go to Yercaud. The name Yercaud is supposed to have been derived from the Tamil word Erikkadu (Eri + Kadu) meaning "lake wood". One other similar place that springs to one's mind is Yelagiri on the top of the Yelagiri Hills in Tirupathur taluk of North Arcot district.

Sports-cum-health resort

Yercaud hill station is a sanatorium and is steadily growing in favour as a hot-season resort. It is situated in the Shevaroys, at an elevation of 1,370 meters (4,500 feet) in the Yercaud taluk of the Salem district. The climate is very delightful and salubrious seldom rising above 75° and never falling much below 60°; and it is particularly very equable between March and June. It has good rainfall (60″) all the year round.

Yercaud hills have all the attraction of a sports-*cum*-health resort with its beautiful lakes, water falls and commanding peaks. It is an ideal spot for short period rest and relaxation such as week ends, casual leave, short periods after fever or post-operational recuperation which find their possessors, almost victims at a loose end vegetating in uncongenial cities.

A one-and-a-half hour's journey by bus from Salem town will take you to the hill top of Shevaroys—the Yercaud—through jungles and thick Coffee plantations. It is at a distance of 32 km. (20 miles) from Salem junction and 35 km. from Salem Town. The scenery is of great variety and beauty and includes the charm of views and almost every point over the plains, not obtainable in Ootacamund and Kodaikanal, for example.

Among the places of interest, the lake is one of the most bewitching scenery. It is said that the lake was created by a German Priest in the Vaniyar in 1850. It has a circumference of seven furlongs. The area of the lake is 285 acres, length 440 yards, breadth 350 yards and the depth varies from 5′ to 13′. It is at a height of (4,400′) 1,340 meters. The lake is surrounded by thick forests. Boating facilities are available. Fish is also grown in this lake.

The Catholic Missionary runs here two schools one for boys and one for girls. Even foreign students come to study in this Montford school which is an indication of its standard and it is a must place for every visitor. One must see the beautiful buildings, the lawns, the gardens, etc., of the school to enjoy them.

Mye Lady's seat near the school, overlooking the plains is really an attractive spot, unforgettable for the impression it leaves. Sitting over the boulders at this place, one can view the valley down below, the sprawling town of Salem between the mountain ranges, the magnesite quarries which are now being exploited and if the sky is clear the Mettur Dam in the distance. An introvert is sure to take back with him memories of this spot. There is a Kennel at Nagaloor Road for dog lovers, where all breeds of dogs are available.

Other important places are Lover's Lane, Churchill Road, Sericulture Research Station, Market square, Municipal office, Pagoda point, Killiyur falls, etc.

Products

Pear, Lemon, Orange, Guava, Custard apple, Pomegranate, Plantain, Jack fruits are available. In order to exploit the horticulture wealth in Yercaud area and to increase the fruit production on modern lines a model orchard-*cum*-nursery was established in Yercaud under the Second Five-Year Plan at a cost of Rs. 55,000 to serve as a demonstration centre. World's finest coffee is produced here. Geranium, Wattle bark and Teak are some of the other commercial products of Yercaud. Indian gall nut, sandal nut and some valuable medical herbs are also available.

There is a Municipal choultry and a Government of India rest house for the Railway employees. There are several decent hotels with boarding and lodging facilities. The Madras Government has sanctioned a sum of Rs. 2·5 lakhs under the Third Five-Year Plan for the construction of a Low-income group rest house. After all no nation can afford to neglect the things beautiful if it is to make real progress.

(5)

PLANNING IN MADRAS STATE

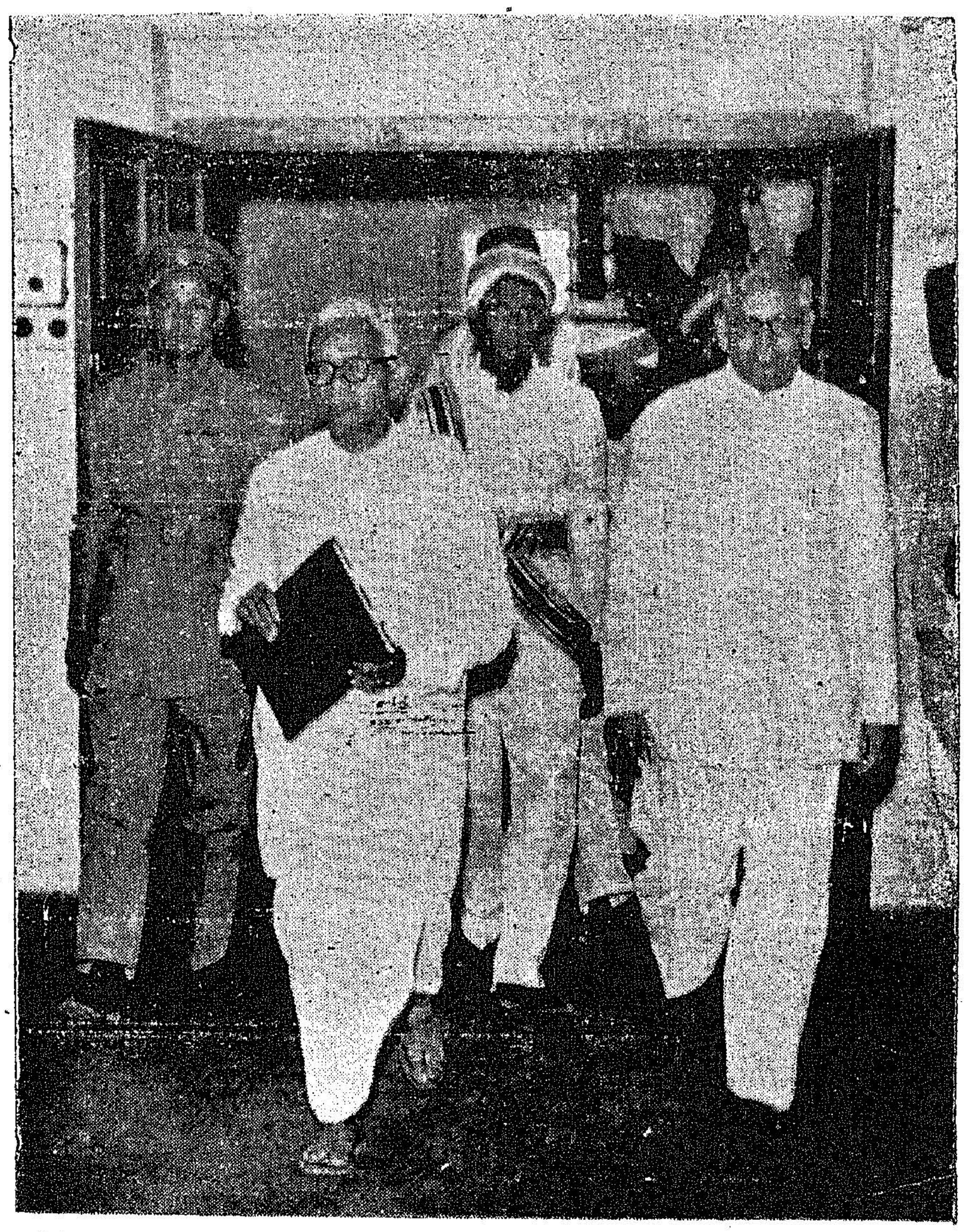
Sri M. Bhaktavatsalam, Chief Minister, presenting the Budget for 1965-66 to the Madras Legislature on 1st March 1965 said that special significance is attached to the Budget for the year 1965-66 as it marks the fulfilment of the Third Plan. The Budget has, in recent years, become an instrument for the realisation of the targets and objectives of the Plan and while considering the Budget for the last year of the Plan, the House, he said, would naturally like to make an assessment of the progress of the State in different sectors in the Third Plan period. It is on the basis of the achievements of the Third Plan that we can determine the size and strategy of the Fourth Plan.

On the basis of existing taxation, a revenue of Rs. 163·63 crores has been estimated for 1965-66. Expenditure on revenue account has been put down at Rs. 170·60 crores. Thus a deficit of Rs. 697 lakhs on revenue account has been left uncovered.

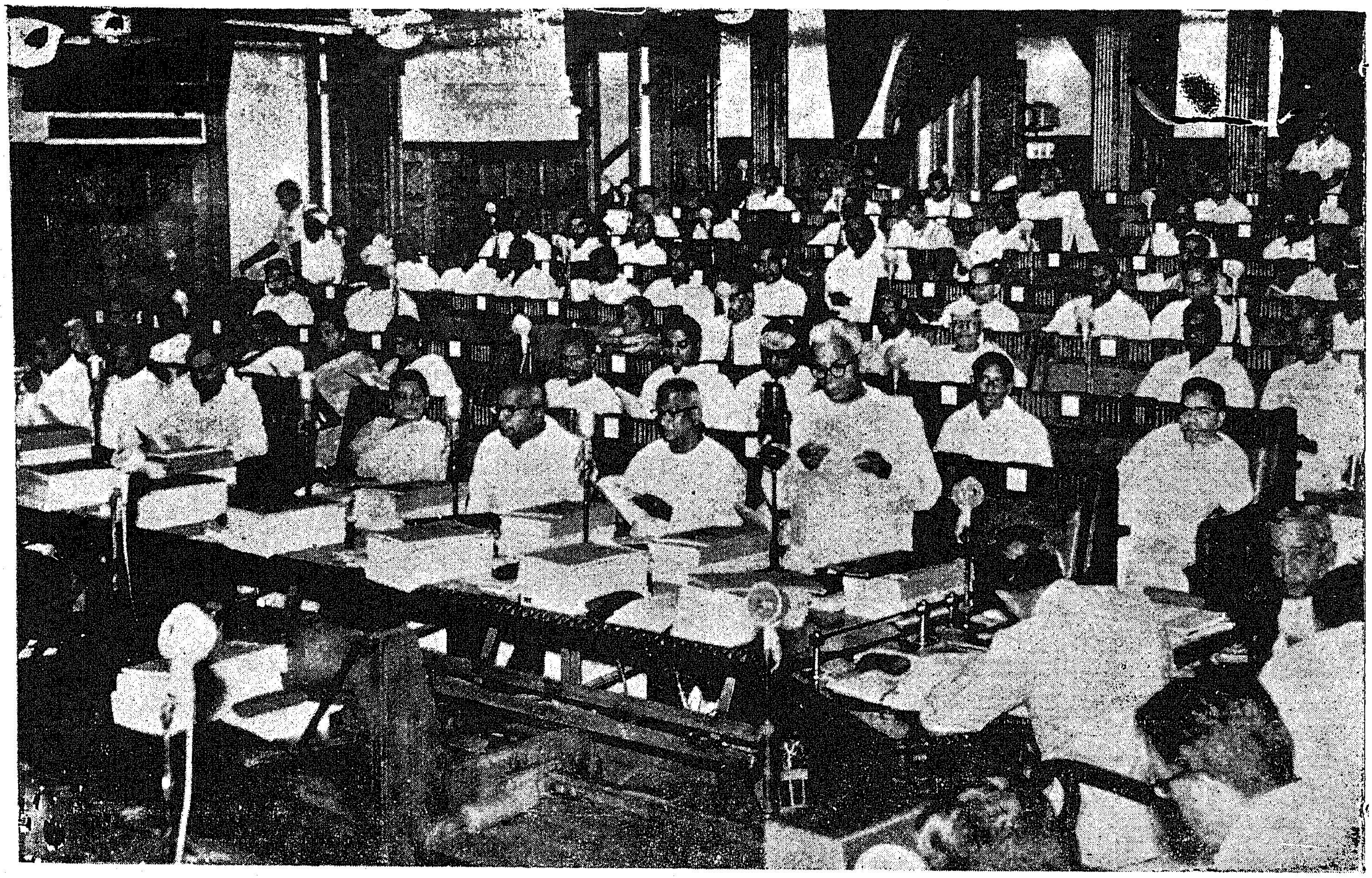
The Third Plan of the State had originally visualised an outlay of Rs. 291 crores. The implementation of the Plan has been according to schedule and in certain vital sectors even well ahead of it. Within the framework of the Five-Year Plan the outlay for every year is determined in consultation with the Planning Commission. It should be a matter for gratification that our performance in every year of the Plan has exceeded the outlay initially agreed upon. The outlay on the Third Plan will, therefore, be nearly Rs. 340 crores against only Rs. 291 crores originally agreed upon. Madras is among the few States where there will be no default in the fulfilment of the Plan.

Third Plan Progress

This satisfactory performance has been rendered possible because we have in the last decade built up a sound techno-administrative machinery fully geared to the tasks of development. Our success is also in no small measure due to our determined efforts to raise the necessary resources for the Plan. When the size of the State's Plan was fixed at Rs. 291 crores, the Centre had agreed to extend assistance to the extent of Rs. 190 crores, the balance of Rs. 101 crores being contributed by the State. On the current forecast of our resources for the Plan period as a whole, it is seen that our contribution to the Plan would be of the order of Rs. 147 crores.* Madras is again among the few States of India which have fulfilled what was expected of them in regard to mobilization of resources. The Planning Commission, which recently made an assessment of the progress of Third Plan in the State, has recorded its high appreciation of our efforts and the progress we have been able to register in all key sectors of growth like Agriculture, Power, Industries and



Sri M. Bhaktavatsalam, Chief Minister, who also holds the Finance portfolio, with the "Annual Financial Statement" of the State for 1965-66 before entering the Assembly Hall.



Sri M. Bhaktavatsalam, Chief Minister, who is also in-charge of the Finance portfolio, presented the "Annual Financial Statement" of the State for 1965–66 to the Madras Legislature on 1st March.

Transport. I would like to emphasise that the increase in Plan outlay is only in part due to escalation in costs. A significant part of the increase is directly attributable to the taking up of new schemes like the Second stage of the Mettur Tunnel Hydro-Electric Scheme, Kodayar Hydro-Electric Scheme and enlargement of the scope of Medium and Minor Irrigation Projects. While a detailed assessment of our achievements in physical terms should await the completion of the Plan period, it is even now clear that the targets in important fields like Power, Irrigation, General and Technical Education, Small-scale Industries, etc., will all be realized and to an extent exceeded.

Agricultural Production

The rate of growth in agricultural production is one of the major determinants of the progress of our economy and some concern has been expressed about the poor progress on the farm front in the current Plan period. In assessing the progress in this sector, it should be recognized that while as part of the Plan, Government can provide necessary facilities for increased production, in the form of irrigation, improved seeds and fertilizers, the actual results will depend upon the response of the farmers. Government's role, though vital, is indirect and can bear fruit only to the extent it helps and induces the farmers to take the right decisions on such matters as adoption of improved cultural practices. Seasonal factor also plays an important part in determining agricultural production. In spite of these limitations, our efforts in the last four years of the Plan have resulted in the creation of considerable additional production potential. The advance estimates of production for the current year as compiled by the Director of Statistics, point to an actual production of the order of 60 lakhs of tonnes of foodgrains, as against 53 lakhs of tonnes at the commencement of the Third Plan.

In our programme for stepping up agricultural production we have placed reliance principally on increased application of chemical fertilisers and use of improved seeds. It is a matter for gratification that the consumption of nitrogenous fertilisers has registered an impressive increase from 1·13 lakhs of tonnes at the end of the Second Plan to 2·75 lakhs of

STATE BUDGET AT A GLANCE

	Accounts, 1963-64.	Budget, 1964-65.	Revised, 1964-65.	Budget, 1965-66.
	(IN LAKHS OF RUPEES)			
Receipts	1,34,77	1,38,48	1,47,01	1,63,63
Expenditure ..	1,35,00	1,40,82	1,51,77	1,70,60
Revenue deficit ..	— 13	— 234	— 476	— 697

tonnes at the end of 1963-64. In the current year, it is estimated to increase up to 3·25 lakhs of tonnes. Arrangements have been made to increase the number of retail distribution points to 4,000 and also associate private dealers with sale of fertilisers as an experimental measure in the districts. Of some long-term significance is the start we have made with the sale of fertilisers to ryots through a mobile van in Thanjavur district. In view of the difficulties of foreign exchange, the Government of India have been unable to comply in full with our requests for increased allocation of nitrogenous fertilisers. It will therefore be prudent for the present to assume that only about four lakhs of tonnes of fertilisers will be made available to the State in the next year, as against the Plan target of 5·8 lakhs of tonnes.

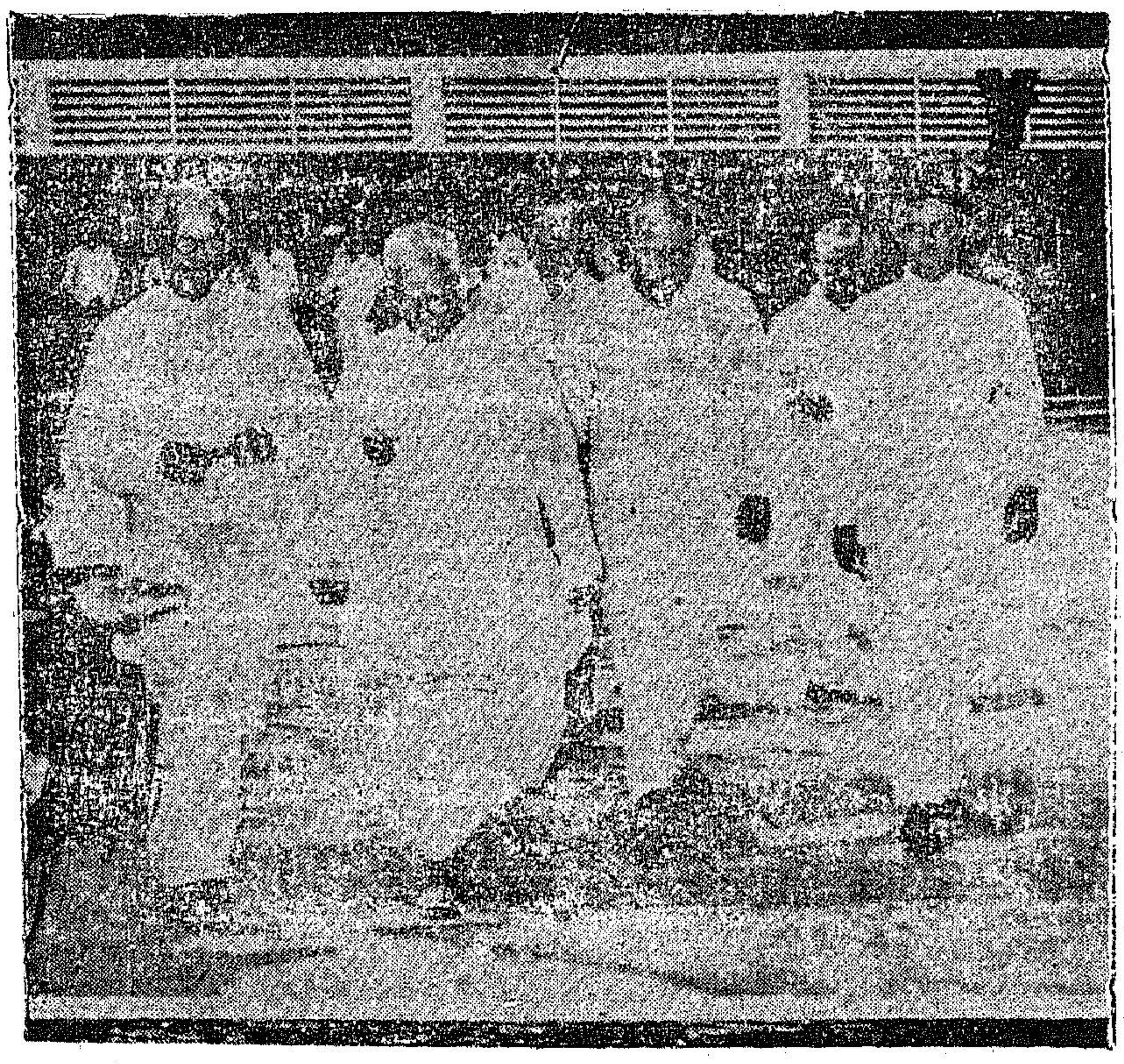
Keeping these limitations in view and on current trends in agricultural production, we have to draw up our Plan for agricultural production in the Fourth Plan period on the basis that the production of foodgrains at the end of the Third Plan will be about 65 lakhs of tonnes. Though falling short of the Third Plan target of 69–70 lakhs of tonnes, this will still represent a substantial increase over the base level production and compare favourably with the increase of the order of nine lakhs of tonnes achieved during the Second Plan period. Any little increase over this level due to favourable seasonal conditions or larger availability of fertilisers will of course provide a higher base for growth in the Fourth Plan.

In this context our efforts should be directed towards popularisation of improved strains which can effectively absorb increased dosage of chemical fertilisers. A new strain of short-term paddy, called A.D.T. 27, has been evolved which is capable of responding to higher application of fertilisers and giving highly increased yield without lodging. Large-scale demonstrations conducted during the last season have shown that yields up to 4,000 lb. and more per acre can be obtained with this strain against an average production of about 2,000 lb. only given by A.D.T. 20 in the same area. The Government have recently sanctioned a scheme at a net cost of Rs. 4 lakhs for multiplying and distributing A.D.T. 27 in the Cauvery Delta, so as to cover about two lakhs of acres by the end of 1966–67. This scheme alone, when fully implemented, will assure additional food production of the order of one lakh of tonnes.

Past experience has also underlined the need for concentration of efforts in selected areas offering special facilities for achieving increased production within a short period. This is the approach underlying the Package Programme. Consistent with this approach, it is proposed to implement an Intensive Cultivation Area Programme in selected tracts in Chingleput, Coimbatore, Madurai and Tirunelveli districts. The agricultural extension staff in these areas will be substantially strengthened and increased production targets aimed at on the basis of farm production plans and supply of necessary facilities including credit in relation to such farm production plans. Provision has been made in the Budget Estimate for Rs. 16 lakhs for this scheme.

Irrigation Programmes

In the context of increasing agricultural production within a short period, emphasis has to be laid on quick maturing schemes. It is in this view that we have stepped up substantially the Minor Irrigation Programmes. We have in particular launched a drive for the sinking of a larger number of wells and have raised the limit for sanction of loan from Rs. 2,000 to Rs. 5,000 per well under the New Well Subsidy Scheme. About 4,000 wells are expected to be completed in the current year as against only about 3,000 in the last year. Besides,



Chief Minister who inaugurated the Annual Conference of the Madras Civil Service (Executive Branch) Association with the Minister for Works Sri V. Ramiah after the function. The President of the Association, is at the extreme right.

as part of the Crash Programme, about 1,600 wells are proposed to be sunk in Orathanad and Pattukkottai areas in Thanjavur district. In the light of the encouraging response to the scheme in the current year, we have set a target of 8,000 wells for the next year. The Government have also sanctioned a special scheme at a cost of Rs. 37 lakhs for sinking 2,000 filter point tube wells in Thanjavur district, with a view to enable the ryots to raise an additional crop during the summer. When this scheme becomes widely popular, supplemental irrigation with well water will become the normal agricultural practice in the delta area. The scheme will also assist in a substantial increase in average yield of the kuruvai crop by facilitating the early raising of seedlings.

Our Major and Medium Irrigation Projects are also making satisfactory progress. The peak outlay on Parambikulam-Aliyar Project will be reached in the current year as will be evident from a provision of Rs. 6·1 crores in the Revised Estimates. The Aliyar Reservoir, one of the important dams in the chain of dams visualised under this project, has already been completed and water made available for irrigation of 17,500 acres. In 1965-66, the Parambikulam, Tunaccadavu and Tirumurthi Dams will also be completed along with connected works like the Sarkarpathi Tunnel and the Contour canal. With the provision of Rs. 556 lakhs for this project in 1965-66, an additional irrigation potential for about 60,000 acres will be created. We are moving the Government of India for an additional allocation of Rs. 1·5 crores in 1965-66 to enable us to speed up the works on the projects further and facilitate provision of irrigation for 45,000 acres in advance of the schedule otherwise possible. A provision of Rs. 258 lakhs has been made in the Budget Estimates for other medium irrigation projects with a view to ensure completion of (i) the scheme relating to remodelling of Palar Anicut and Channels, (ii) Sathanur Projects II Stage, (iii) Gomukhi Nadhi and (iv) Manjalar Schemes. With an allocation of Rs. 186 lakhs, the work on Chittar Pattanamkal Scheme will also be appreciably speeded up.

Animal Husbandry

In our present drive for improvement of agricultural production, we should also bear in mind the need for stepping up production of subsidiary foods such as milk, eggs and fish. The pace of execution of programmes for development of Animal Husbandry has been appreciably stepped up in the current year as is evident from the provision of Rs. 86 lakhs for Plan Schemes in the Revised Estimates as compared with only Rs. 61 lakhs in 1963-64. The provision for next year has also been fixed at Rs. 86 lakhs and could be further raised with reference to the progress of the schemes. Provision has been made among other things, for the opening of ten key village blocks and 24 veterinary dispensaries in the Annual Plan for 1965-66. We have besides launched a number of special schemes of development as part of the Crash Programme sponsored by the Government of India. Schemes entailing an outlay of Rs. 203 lakhs have been sanctioned for implementation in the current year and next. Among these, the scheme for the establishment of three Intensive Cattle Development Blocks in the milk shed areas of Madras, Madurai and Coimbatore at a total cost of Rs. 134 lakhs deserves special mention. The main objective of the programme is to improve the dairy cattle in these tracts through integrated action for the upgrading of the existing breeds through crossing with imported Jersey and other high yielding breeds like the Red and White Sindhis and Murrah buffaloes, development of feed and fodder resources and provision of veterinary aid on a large scale.

Among dairying schemes, the principal achievement in the current Plan period has been the completion of the Madhavaram Milk Project. We have now taken up, with assistance from UNICEF, a project for the improvement of supply of milk for Madurai City, which among other things, provides for the installation of a pasteurisation plant with a capacity of 50,000 litres of milk per day.

Fisheries Development

Our State, with its long coast line, offers immense possibilities for development of fisheries. In the current drive for production of subsidiary foods, the tempo of execution of schemes in this sector has been accelerated. The schemes taken up under the Crash Programme with their emphasis on supply of mechanised boats and improved nets will result in an additional production of 78,000 tonnes of fish valued at Rs. 2·75 crores. With the completion of the boat building yard at Royapuram in the current year, there will be a substantial step-up in the capacity for fabrication of improved boats. The target of 400 mechanised boats set for the Third Plan will be realised and it is visualised that production of fish will be raised from 1·34 lakhs tonnes to about 2·9 lakhs tonnes during the Third Plan period.

The Indo-Norwegian Project for development of fisheries started at Mandapam, with the technical collaboration and financial assistance of the Government of Norway, envisages the establishment of a boat building yard and an ice-*cum*-cold storage plant with

a freezing unit with complementary arrangements for transport and marketing of fish. A centre for training of fishermen is also to be set up and exploration of fishing grounds undertaken. A provision of Rs. 34 lakhs has been made for the project in the Budget Estimates for 1965–66.

Public Sector Industries

The State has also made appreciable progress in industrial development in the current Plan period. The textile industry was the only fairly well-developed industry worth mentioning at the beginning of the First Plan period. We have during the last two Plan periods built up a broad-based industrial complex and have also achieved a fair measure of dispersal of industries in different parts of the State. In spite of the deficiency of the State in basic raw materials, our State has made appreciable strides in industrialisation in recent years by fully exploiting other favourable factors, such as availability of trained manpower, cheap electric power and a resourceful entrepreneurial class.

The Neyveli Lignite Project, which is the biggest of the industrial undertakings in the Central sector has now entered on the second phase of its development from 250 MW to 400 MW and the sixth unit with 50 MW of installed capacity is expected to go into operation shortly and thus provide relief to our grid in the next season. The scheme for raising the capacity of the thermal station to 600 MW has also been sanctioned and the preliminary work relating to the scheme of expansion has been taken on hand. The project was originally intended for mining only 3·5 million tonnes of lignite. It is now proposed to raise the capacity of the first mine to 5·5 million tonnes in the first stage and to 6·5 million tonnes in the second stage. The work relating to the briquetting and carbonising plant and the urea plant is also in progress. The Ammonia plant is expected to be commissioned in June 1965.

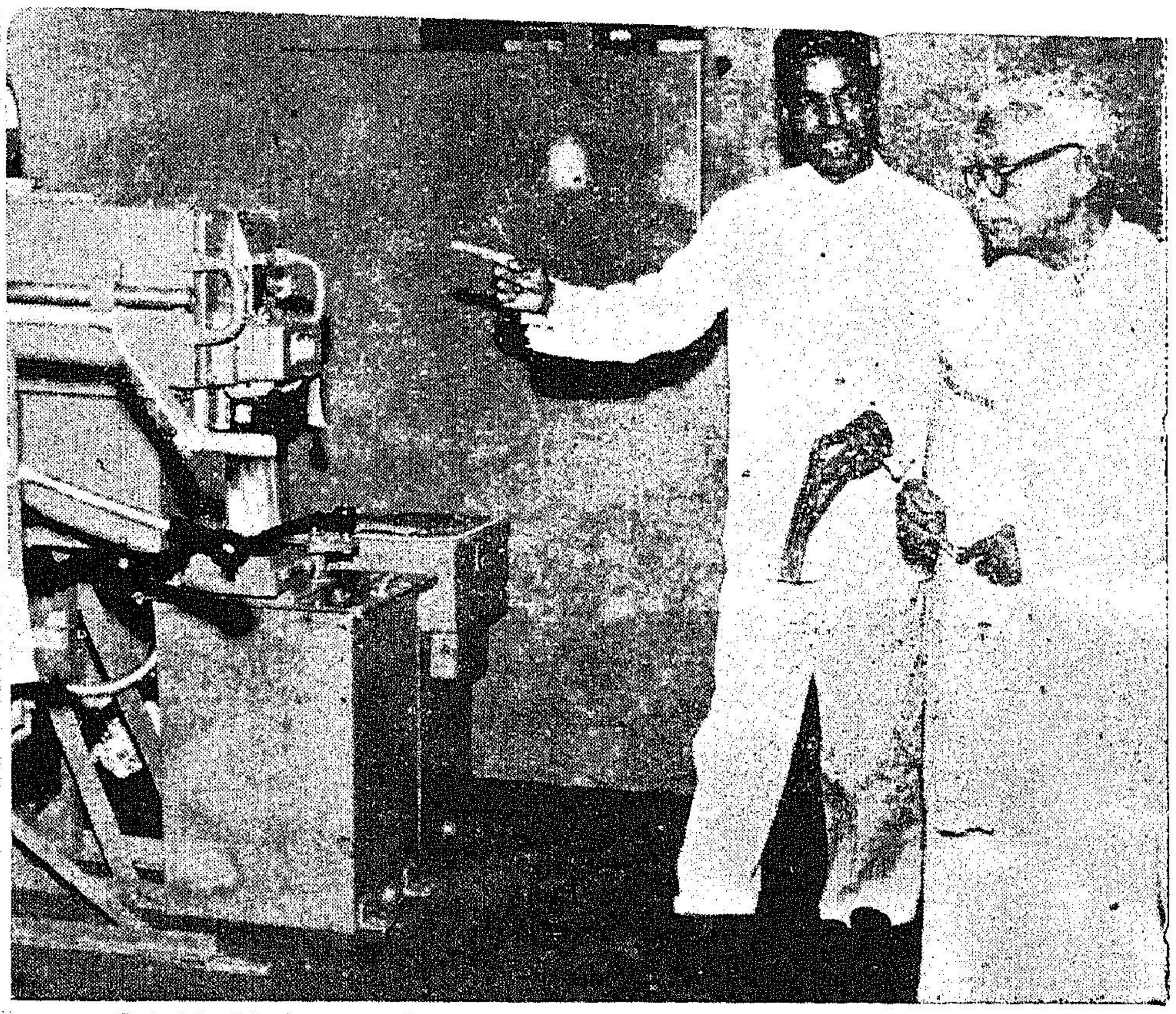
The Heavy Vehicles Factory at Avadi involving a capital outlay of Rs. 16 crores has also made substantial progress and the first tank is expected to roll out of the factory in the next few months. A factory for Small Arms is also being set up at Tiruchirappalli at an anticipated cost of nearly Rs. 8 crores.

The Hindustan Teleprinters, Limited, who are producing about 800 teleprinters a year, have moved into a factory of their own and are expected to achieve their full licensed capacity of 1,300 units shortly. The work relating to the expansion of the productive capacity of this unit to 8,000 teleprinters a year has also been taken on hand. The Surgical Instruments Factory with an initial capital outlay of Rs. 5·25 crores is also expected to go into production in the middle of 1965. The High Pressure Boiler Plant near Tiruchirappalli, which with a capital outlay of Rs. 25 crores, one of the biggest public sector undertakings in the State is progressing fast and will go into production by March 1966. The construction of the Hindustan Photo Films Factory is proceeding according to schedule.

The Government of India have decided to locate a Petroleum Refinery in the Madras State with a capacity of 2·5 million tonnes of crude and also a fertiliser factory with a capacity of 200,000 tonnes of nitrogen per year. Lands for these projects are under acquisition and the State Government are now doing preliminary investigations for the provision of various facilities like water, railway siding, roads, etc. The Central Government are also investigating suitable sites in this State for the location of a Tele-communication Cable Factory, a Pumps and Compressor Project and a Heavy Plates and Vessels Shop.

The detailed project report prepared by Messrs. Dastur and Company, Consultants, appointed by the Government of India has established the techno-economic feasibility of the Neyveli-Salem Steel Plant beyond doubt. The project report envisages a plant with an initial capacity of 0·5 million tonnes of steel with scope for expansion to 1·2 and 3 million tonnes respectively in subsequent stages. The capital investment required for the first stage of development is estimated at Rs. 95 to 100 crores. The project will have one of the lowest raw material assembly costs among the steel plants in the country and will be specially suited for the production of special steels and alloy steels, as the iron-ore proposed to be used is free from sulphur and phosphorous. We are confident that this project will be taken up for implementation in the Fourth Plan.

In the State sector, the work relating to the establishment of nine co-operative spinning mills is making excellent progress. The Co-operative Spinning Mill at Salem has already been commissioned in June 1964 and the other mills are expected to go into production in 1965. Similarly, the work relating to the establishment of co-operative sugar mills is making satisfactory progress. The Co-operative Sugar Mill near Mohanur in Salem district has gone into production with a capacity of 1,000 tonnes of cane per day. The other two



Sri M. Bhaktavatsalam who inaugurated the seminar on Electrical Industries at Rajaji Hall recently, is going round the exhibition organised in connection with the seminar.

Co-operative Sugar Mills at Kallakurichi and Madurai respectively are also expected to be completed in time for the next crushing season.

The State Government have decided on the establishment of the Madras Industrial Development Corporation as a company wholly owned by Government for the purpose of setting up large-scale industrial undertakings in the public sector. Provision has been made in the Budget Estimates of 1965–66 for an initial contribution of Rs. 75 lakhs towards the share capital of this Corporation. The Corporation will, in the first instance, take up the establishment of a Continuous Casting Mill at Arkonam and a Cement Plant near Rajapalayam. The work relating to these two projects involving a capital outlay of nearly Rs. 8·5 to Rs. 9 crores will be taken on hand shortly.

Industries in Private Sector

The major industrial programmes in the private sector too have made satisfactory progress in the current year. A few of the automobile ancillary production units, a welding electrode unit, a large-scale sugar mill, a cement mill, an oxygen plant, a few roller flour mills and a number of other engineering industries have gone into production. The most significant achievement in the current year will be the commissioning of the Aluminium Smelter near Mettur with a capacity of 10,000 tonnes per annum. This is perhaps the largest venture in the private sector in the State and the State Government, besides assisting this enterprise with supply of power at concessional rate has also participated in its capital structure to the extent of Rs. 1·5 crores through the Madras Industrial Investment Corporation. Another important development in the private sector in the current year is the setting up of the South India Shipping Corportion with collaboration from West Germany and the United Kingdom for the purpose of acquiring and operating five bulk cargo carriers. The Madras Industrial Investment Corporation has played a useful role in stimulating industrial development in the private sector. In 1964, it has sanctioned cash loans to the extent of Rs. 2·32 crores, joint loans to the tune of Rs. 42·9 lakhs apart from guaranteeing loans for Rs. 1·48 crores. It has also encouraged flotation of new ventures by underwriting shares to the extent of Rs. 2·9 crores and direct subscription of the order of Rs. 1·13 crores.

Power Schemes

The fair measure of success we have achieved in expansion and diversification of industries in the State in the last ten years has to no small extent been due to the energetic implementation of power programmes. Out of the total Third Plan outlay of Rs. 291 crores, a little over Rs. 100 crores had been earmarked for development of power. We have since then taken up new schemes and also intensified rural electrification programmes. The outlay on power programmes in the current Plan period is therefore expected to be about Rs. 120 crores. As against Third Plan target of 1,040 MW of power, the Madras State Electricity Board will have an installed capacity of 1150 MW. With the 400 MW of power to be commissioned at Neyveli, the installed capacity in the State will be 1,550 MW as against only 571 MW at the commencement of the Third Plan. This progress is by any standards phenomenal and will rank as the principal achievement of the Third Plan period.

The pace of execution of power programmes has been well maintained in the current year. A plant with a capacity of 20 MW has already been commissioned in Kundah Power House V. Another unit of 60 MW will go on stream in Kundah Power House III before the end of March. The recent commissioning of 150,000 lb. hour boiler at Basin Bridge has rendered possible an additional production of 10 MW of power. The Madras grid has thus been strengthened with an installed capacity of 90 MW of power in the current year. This apart from the completion of the first stage of development of power at Neyveli to the extent of 250 MW should provide considerable relief to our grid in the coming year. The next year will witness the completion of the Mettur Tunnel Scheme with a capacity of 200 MW, the second Unit of Kundah Power House III (60 MW) and Kundah Power House IV (50 MW) and an additional unit in

Periyar with a capacity of 35 MW. The Parambikulam-Aliyar Hydro-Electric Scheme will also be completed in part and 100 MW of installed capacity will be commissioned.

A provision of Rs. 4 crores has been made for rural electrification programmes in the Annual Plan for 1965-66 and we expect the Government of India to allocate in addition a minimum of Rs. 1 crore outside the Plan as part of their Crash Programme for stepping up agriculture production. By the end of the Third Plan we would have extended power to 20,500 towns, villages and hamlets as against 10,760 at the commencement of the Third Plan. Over 2·3 lakhs of pumpsets will be connected to power by the end of the current Plan period and the additional irrigation potential thus created is substantial. In spite of the increase in installed capacity, the demand for power is found to be constantly in excess of the available supply and Government have therefore been constantly exploring possibilities for new power schemes in the State. As part of our advance action of the Fourth Plan, we have initiated work on the Kodayar Hydro-Electric Scheme with a capacity of 100 MW and the expansion of Basin Bridge Thermal Station by an additional 30 MW. Keeping in view the need to maintain a proper balance between hydel and thermal power, we have already obtained clearance of the Planning Commission for setting up a thermal station with a capacity of 300 MW at Ennore.

Progress in Education

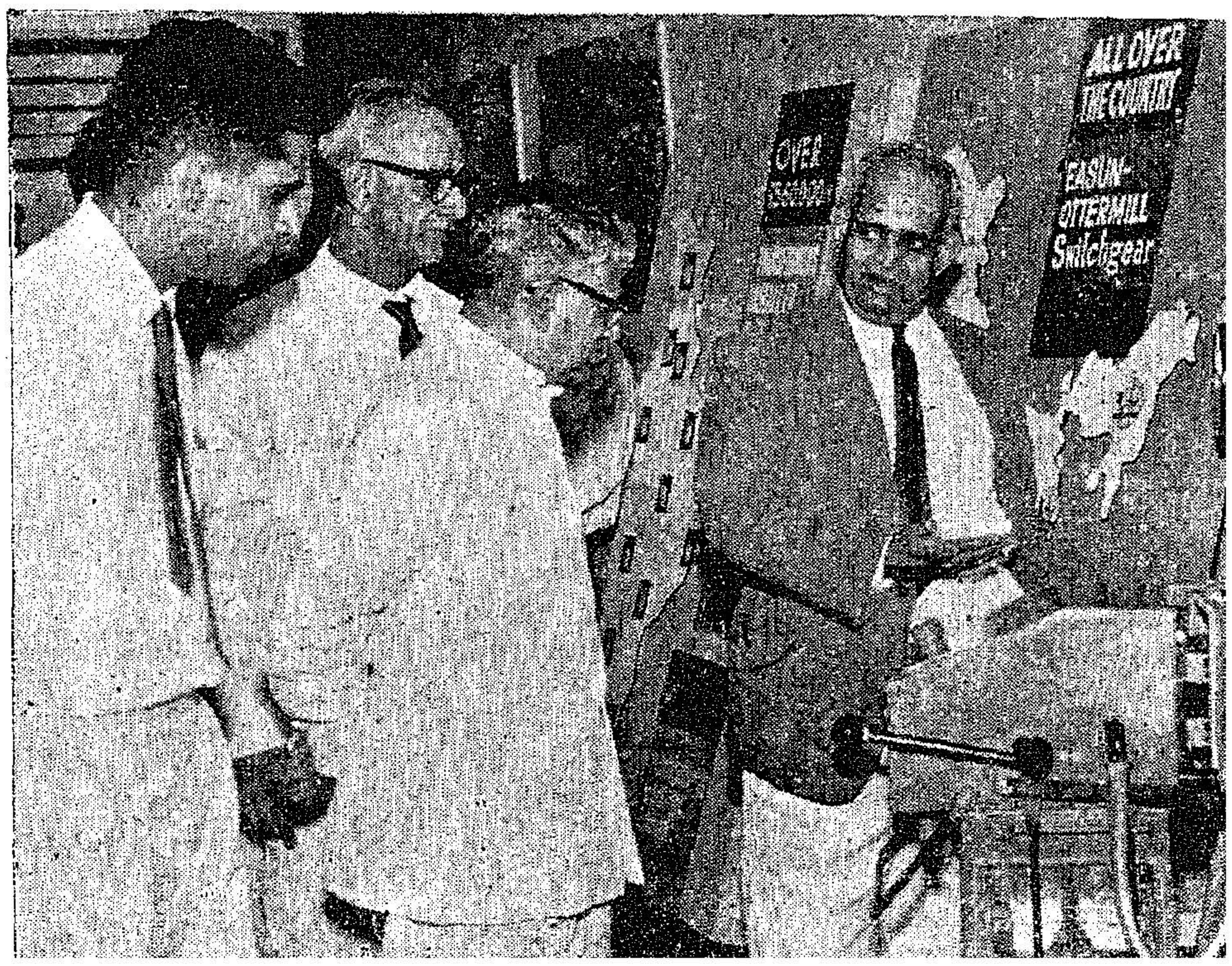
The pace of exansion of technical education has a direct bearing on economic development. The programmes for this sector have been worked out with reference to long term projections of our requirements of economy for trained technical manpower. By the end of the Third Plan, the admission capacity in the Engineering Colleges in the State would have been stepped up to 2,140 and that in Polytechnics to 4,200. We would thus overfulfil the target originally set in the Third Plan. The House should be glad to note that arrangements are being made to start the proposed Government Engineering College at Salem with effect from the next academic year. The Budget Estimates for 1965-66 provide for the taking of preliminary action in respect of the new Government Polytechnics proposed to be opened at Thanjavur, Tenkasi, Mettur and Cuddalore, early in the Fourth Plan period.

With the expansion of education at higher elementary level it is necessary to provide for diversion of boys of the age-group 14—17 to technical courses of study. The Junior Technical Schools are intended to meet this need. Ten Junior Technical Schools have already been started in this State and the Budget Estimates provide for the opening of ten more Junior Technical Schools to be located at Kancheepuram, Nagapattinam, Gudiyatham, Salem, Annamalainagar, Dindigul, Tuticorin, Karaikudi, Rajapalayam and Avadi. Provision has also been made for the establishment of an Institute of Textile Technology and an Institute of Commercial Practice at Madras. The bulk of the expenditure on the development of these institutions will arise in the Fourth Plan.

The importance of education as a factor in promoting economic growth has been recognized in our Plans. The targets under this head of development will be overfulfilled both in physical and financial terms. The expenditure on Education, Plan and non-Plan together, will, in the present budget, be of the order of Rs. 37 crores, representing nearly 22 per cent of the total Revenue Budget. Ninety-two per cent of the children of the age-group 6—11 will be at school by the end of the Third Plan and on the basis of this achievement, we are now in a position to plan confidently for 100 per cent enrolment in the next quinquennium. It may not be out of place to mention here that the Fourth Plan visualises a target of enrolment of only 87·7 per cent for the country as a whole. It is clear that we are far ahead of most of the other States.

The provision of free school meals has been an important contributory cause for the successful enlistment of pupils from poorer sections of the society. This scheme, which is now in force in over 30,000 elementary schools in the State, benefits 16 lakhs of children. The Budget

Industries Minister Sri R. Venkataraman who presided over the seminar on Electrical Industries inaugural function is looking at some of the exhibits organised on the occasion.



for next year embodies a provision of Rs. 186 lakhs for this scheme. The CARE Organization are continuing their generous assistance towards enriching the quality of the mid-day meals programme and the value of their contribution in the form of milk powder, cooking oil and corn meal in the last four years of implementation of the programme is well over Rs. 6 crores. At higher elementary level too, the progress so far has exceeded our expectations and against a Third Plan target of enrolment of 2·1 lakhs of pupils 5·9 lakhs will be enrolled.

Institute of Education

The Government have recently established a State Institute of Education, with a view to ensure improvement in standards of instruction in schools. The institute will impart in-service training to all inspecting officers concerned with elementary schools and the staff of institutions in charge of training elementary school teachers. The institute will also produce literature inclusive of teaching aids for use in elementary schools. In an era of rapid expansion, it has obviously been difficult to maintain adequate standards of accommodation in elementary schools. We have been trying to do our best to tackle this stupendous problem, within the resources available and as in previous years a provision of Rs. 40 lakhs has been made for payment of grants to Panchayat Unions for construction of buildings for elementary schools with an element of public contribution.

With the expansion of elementary education we have also had to take steps for enlargement of the facilities for secondary education. The number of pupils seeking admission has increased appreciably with the implementation of Government's policy of free education up to the Secondary School-Leaving stage. The anticipated enrolment in secondary schools by the end of the Third Plan is 2·75 lakhs as against a Plan target of only 75,000. The expenditure on Secondary Education has risen substantially in the last two years. As against an expenditure of the order of Rs. 6·7 crores in 1963–64 we have to allocate Rs. 11·8 crores in the Budget for next year for Secondary Education. This unprecedented expansion has naturally brought in its wake problems relating to maintenance of standards of accommodation and equipments in the schools. Towards meeting this problem in some measure we have made a provision of Rs. 30 lakhs for payment of grants for construction of buildings for high schools formerly under the control of district boards.

Expansion at secondary level has in its turn necessitated augmentation of facilities for collegiate education. It is proposed to open seven Government Arts Colleges in the next academic year and consistent with our policy of promoting a wide diffusion of facilities for higher education, these colleges will be mostly located in educationally backward tracts. Provision has also been made in the Budget for the construction of buildings for the newly opened colleges in Cuddalore and Gudiyatham. A decision of far-reaching importance relates to the opening of evening colleges for men and women. It is proposed to make a start in the next academic year with three evening colleges—two for men in the Government Arts Colleges in Madras and Coimbatore, respectively and one for women in the Queen Mary's College. These evening colleges will benefit a larger number of students and in particular, those in employment, who would otherwise be denied access to collegiate education.

Medical and Public Health

With the successful implementation of the National Malaria Eradication Programme, we have now to devise satisfactory arrangements for continued vigilance in this sphere. As part of such arrangements and in pursuance of our programme for augmentation of facilities for medical relief in rural areas, we have sanctioned the opening of 120 Primary Health Centres in different blocks. The Third Plan objective of setting up one Primary Health Centre for every block will be realized.

It is necessary to ensure that the fruits of economic progress are not dissipated by too large an increase in population. High priority has rightly been accorded to Family Planning Programmes in the Third Plan. We have recently taken steps to intensify this programme. The services of canvassers have been enlisted in popularising the scheme with adequate safeguards for screening through special liaison officers of persons offering to undergo sterilization operation. We have sanctioned additional staff for the different medical institutions and have sought to secure the active participation of Panchayats and Panchayat Unions in the implementation of the programme. This programme is of vital importance from the point of view of raising the living standards of our people and I have no doubt that non-official leaders like the Honourable Members, and the Chairmen of Panchayat Union Councils will play their part in moulding public opinion on this subject.

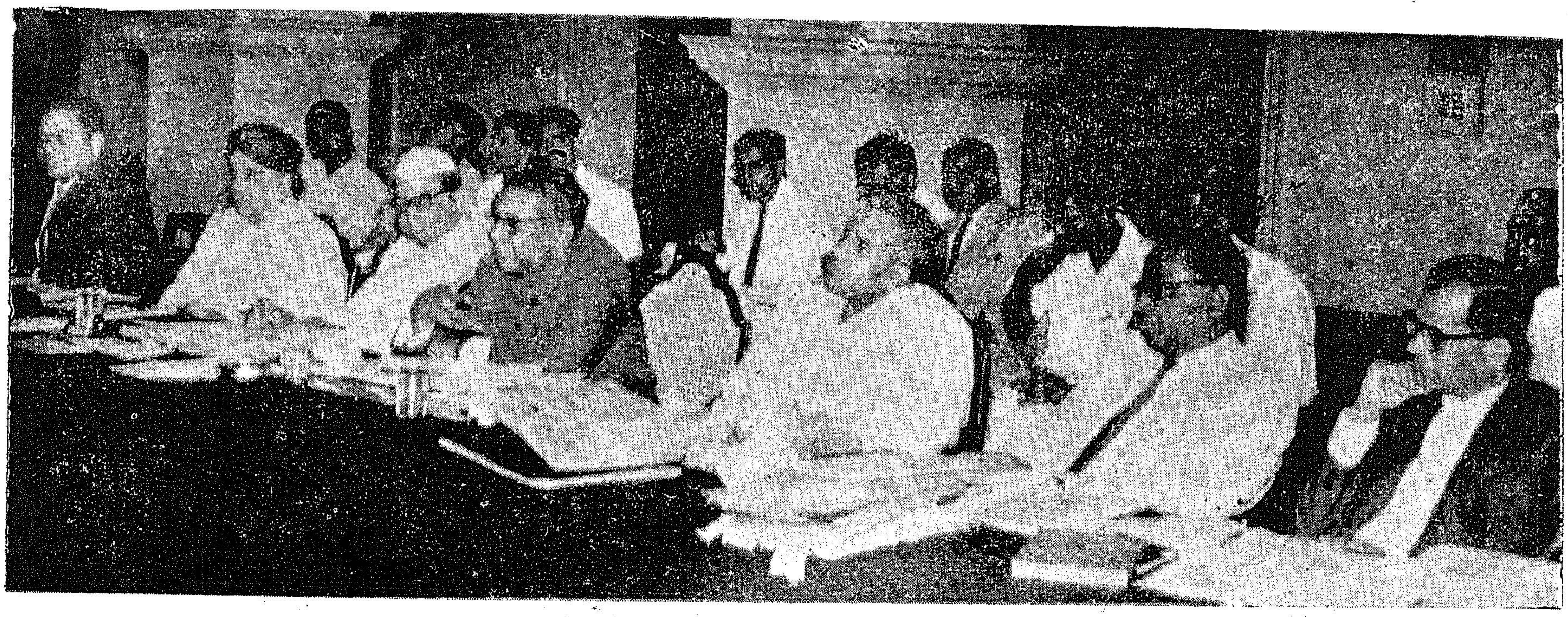
Backward Classes

The Welfare of Backward Classes has always been of special concern to Government. We have made a provision of Rs. 484 lakhs in 1965–66 for schemes for the Welfare of Scheduled Castes and Backward Classes. Schemes for payment of scholarships, residential and non-residential, are all being continued and suitably

enhanced provision made in the present Budget. We have in particular stepped up the pace of acquisition of house-sites for Harijans and a provision of Rs. 38 lakhs has been made for such acquisition in the coming year.

The Budget for 1965-66, after providing for a reasonable element of growth under all elastic sources of revenue such as Motor Vehicles Tax, Sales Tax and Electricity Duties, estimates the receipts at Rs. 163·63 crores and the expenditure on revenue account Rs. 170·60 crores, resulting in a deficit of Rs. 697 lakhs. On current projections of revenue and on the basis of our existing commitments, the deficit should normally be well under Rs. 2 crores. But the sanction by Government of India of substantial increase in the rates of Dearness Allowance for their employees on the basis of recommendations of the Das Commission has created a new situation which we have had to take note of.

Government have carefully reviewed the existing rates of Dearness Allowance for their employees in the light of the decisions of the Government of India. The Government of India, while raising the rates of Dearness Allowance of their employees on the basis of the recommendations of the Das Commission, have left out of consideration the employees in the pay range Rs. 600—1,200. We consider that this class of employees, the bulk of whom had not benefited from the recommendations of the Pay Commission, also need relief. The Government have accordingly decided to sanction revised rates of Dearness Allowance with effect from 1st April 1965, i.e., pay for March due on 1st April. These increases will also apply to employees of local bodies and teachers in aided institutions and financial assistance will be extended to these agencies on existing basis towards this additional



The Fourth Finance Commission met at Rajaji Hall, on 9th March 1965. The Madras Ministers and other Officers are discussing with the Members of the Commission.

commitment devolving on them. This enhancement in rates of Dearness Allowance will entail an additional expenditure of the order of Rs. 5·58 crores per annum.

The revenue deficit of Rs. 697 lakhs, though large, is due entirely to the two instalments of increases in Dearness Allowance in the current year and the further increase proposed in the next. The Finance Commission which is now in session should take note of these additional commitments and propose suitable devolution of resources. We have therefore decided to leave the gap in revenue account uncovered and have not proposed any additional taxation. The ways and means position, too, will continue to be difficult in the next year. We will have to keep a close watch over our receipts and expenditure and intensify our efforts for mobilisation of resources through collection of arrears and checking of tax evasion. There is also scope for improvement in collections under Small Savings and the Honourable Members and other leaders of public opinion like Chairman of Panchayat Unions and Panchayat Presidents have a great part to play in spreading the message of the Small Savings Movement, particularly in rural areas. It is only to the extent that we divert in this manner a part at least of the increased incomes generated by the implementation of the Plan for further investment in Plan projects that we can sustain the increased developmental effort visualised in the Fourth Plan.

The Fourth Plan will be a bigger Plan—bigger than all the preceding Plans together. We have prepared our draft Fourth Plan, keeping in view the targets and objectives of the national Plan, and with due regard to local problems and local needs. In settling the strategy and pattern of investment in the Fourth Plan, we have kept in view the fact that the density of population in Madras at 669 per square mile is far higher than that for the country as a whole. The per capita availability of culturable land per head of agricultural population is also lower in our State. The possibility of stepping up production of foodgrains through a mere build-up of economic overheads, such as irrigation, is limited. We have, therefore, to lay emphasis on an expansion of output through utilization of increased and improved material inputs like good seeds, fertilizers and green manures. We are thus entering a more challenging phase of agricultural development in our State.

On a careful consideration of these and other relevant factors, it has been estimated that it will be possible to step up production of foodgrains from 65 lakhs of tonnes to 80 lakhs of tonnes in the Fourth Plan period. Within the agricultural sector, there is also need for diversification of cropping pattern in favour of high value yielding crops such as sugarcane, long staple cotton, groundnut, fruits and vegetables.

Highlights of the Madras Budget

* Ninety-two per cent of the age-group 6—11 will be at school by the end of the Third Plan while only 87·7 per cent has been visualised in the Fourth Plan for the country as a whole.
* At higher elementary level too 5·9 lakhs of pupils will be enrolled by the end of the Third Plan as against the original target of 2·1 lakhs.
* An Institute of Education will be started to improve the standard of teaching and education.
* Seven Arts Colleges will be opened in the next academic year in the educationally backward tracts of the State.
* Evening Colleges will be opened in the next academic year for Men and Women.
* The Neyveli-Salem Steel Plant will have one of the lowest raw material assembly costs among the Steel Plants in the Country.
* As against the Third Plan target of 1,040 MW of Power, the Madras State Electricity Board will have an installed capacity of 1,150 MW with the 400 MW of Power to be commissioned at Neyveli, the installed capacity in the State will be 1,550 MW as against only 571 MW at the commencement of the Third Plan.

Sri M. Bhaktavatsalam, with the U. S. S. R. Parliamentary delegation who paid a visit recently to Madras.

By the end of the current Plan, Madras would have almost reached the limits of utilization of its water resources. The southern region on the whole however is well endowed with water resources and it should be the objective of national policy to promote their utilization in the best interests of the region. The State Government have provided in the Fourth Plan for the diversion of some of the west-flowing rivers and will seek to obtain the concurrence of the Planning Commission and the neighbouring States for these schemes. Apart from this, attention will have to be concentrated on improvement of the old irrigation systems so as to promote a more economic utilization of water and facilitate further extension of irrigation with the water so conserved. Highest priority is being accorded in the Fourth Plan to the modernization and improvement of channels in the Thanjavur Delta. Investigation on similar lines for the improvement of the Periyar System has also been undertaken. Provision is also being made in the Fourth Plan for the following new medium irrigation schemes :—

(i) Provision of irrigation facilities to Avinashi area.

(ii) Parappalar Scheme.

(iii) Chinnar Reservoir Scheme.

(iv) Palar-Perandalar Scheme.

(v) Marudayar Scheme.

The rate of growth proposed for the agricultural sector in the Fourth Plan being slightly lower than visualised in the national Plan, it is proposed to aim at a faster rate of progress in other ancillary sectors, particularly under fisheries which offers great potentialities for development.

The Fourth Plan of the State also calls for a substantial increase in the contribution of the industrial sector to the State income. It has been estimated that an investment in industries of the order of Rs. 600 crores, spread over the Central sector, State sector and the Private sector, will be required to achieve the desired rate of growth. The direct investment by the State Government in industrial development has so far not been substantial. The Government's policy has been one of stimulating private sector, in promoting industrial ventures with provision of necessary economic overheads. There are, however, certain gaps in the structure and pattern of industries as it has developed in the State in the last ten years. There is, in particular, need for development of certain basic industries producing raw materials and intermediaries which could be used by other industries. It is also increasingly realized that the State should directly engage itself in the production of certain vital consumer goods needed for mass consumption. Keeping all these objectives in view it is visualised that the State Government should play a more active role in industrial development in the Fourth Plan. The private sector will still have an important role to play and the provision of industrial finance to them through agencies already in existence and through new agencies like the Agro-Industries Corporation and the Export Corporation is one of the important elements of industrial policy

(*Continued on page 24*)

Assurances of Sri Jawaharlal Nehru

I. Sri Nehru's statement during the debate on Sri Frank Antony's resolution in Lok Sabha on 7th August 1959.

"Dr. Subbarayan referred to the official language, this and that. Our Constitution has laid it down, for a variety of reasons into which I need not go, that Hindi should develop progressively as that, not because Hindi is better or more powerful or whatever it may be, than the other languages, but for certain very practical reasons of extent, this and that. I believe that this should be done.

I believe also two things. As I just said, there must be no imposition. Secondly, for an indefinite period—I do not know how long—I should have, I would have, English as an associate additional language which can be used, not because of facilities and all that, though there is something in that, but because I do not wish the people of the non- Hindi areas to feel that certain doors of advance are closed to them, because they are forced to correspond—the Government, I mean—in the Hindi language. They can correspond in English. So, I would have it as an alternate language as long as people require it and the decision for that, I would leave not to the Hindi-knowing people but to the non-Hindi knowing people.

I will repeat what I mean. Hindi progressively develops, I try for that, but I love English to come into the picture to be used as long as people require it. Some States have followed it ; they can go on using it and gradually allow languages to develop and to replace English."

* * * * * * * * *

II. Statement during the debate on the report of the Committee of Parliament on official language, in the Lok Sabha, on 4th September 1959.

"Whatever I said then (on 7th August 1959) of course, I hold by it completely—I was not laying down any statute or law, I was emphasising an approach, a mental approach. I was not considering what words to use in a Bill or something like that, but a mental approach to this problem."

He then explained the policy of the Government on the subject in the following words:—

"I come to English. I had said that English should be an associate or additional language. What exactly did I mean by it ? Well, I meant exactly what that means. That is to say, English cannot be, in India, anything but a secondary language in future. In the nature of things mass education will be in our own language. English may be taught as a compulsory language, I hope it will be—to a large number of people ; it cannot be everybody but to a large number. It remains as a secondary language. But I say that Hindi, whenever it is feasible, comes into use progressively more and more for the inter-State official work. But English should have a place there ; not a limited place. That is to say, English can be used by any State in writing to the Government or writing to each other. Remember that this internal State work will be done presumably in the State language. English comes in only on the question of dealings on the All-India scale between States. To that, it should be open to anybody and to any State to do that in English. There is no limitation on that. We encourage them to do it in Hindi—if they can they can do. But there is no limitation. I say there is no limitation of time even to that, except when people generally agree—and I had said that these very people in the non-Hindi speaking areas who might be affected should agree. I am perfectly agreeable."

Our Salute!

M. RAMASAMI

Born on 1st July 1922. Enlisted as Police Constable on 7th November 1942. Promoted as Head Constable on 6th April 1959 and Sub-Inspector on 18th July 1963. Native of Thadagapatti, Salem district. He has earned 88 rewards. Dependants : Wife and 5 children (2 sons and 3 daughters).

RAMACHANDRA SINGH

Born on 5th September 1920. Enlisted as Police Constable on 30th August 1943, promoted as Head Constable on 1st October 1947. Native of Thamaraipatti, Melur taluk. He earned 25 rewards. Dependants : Wife and 5 children.

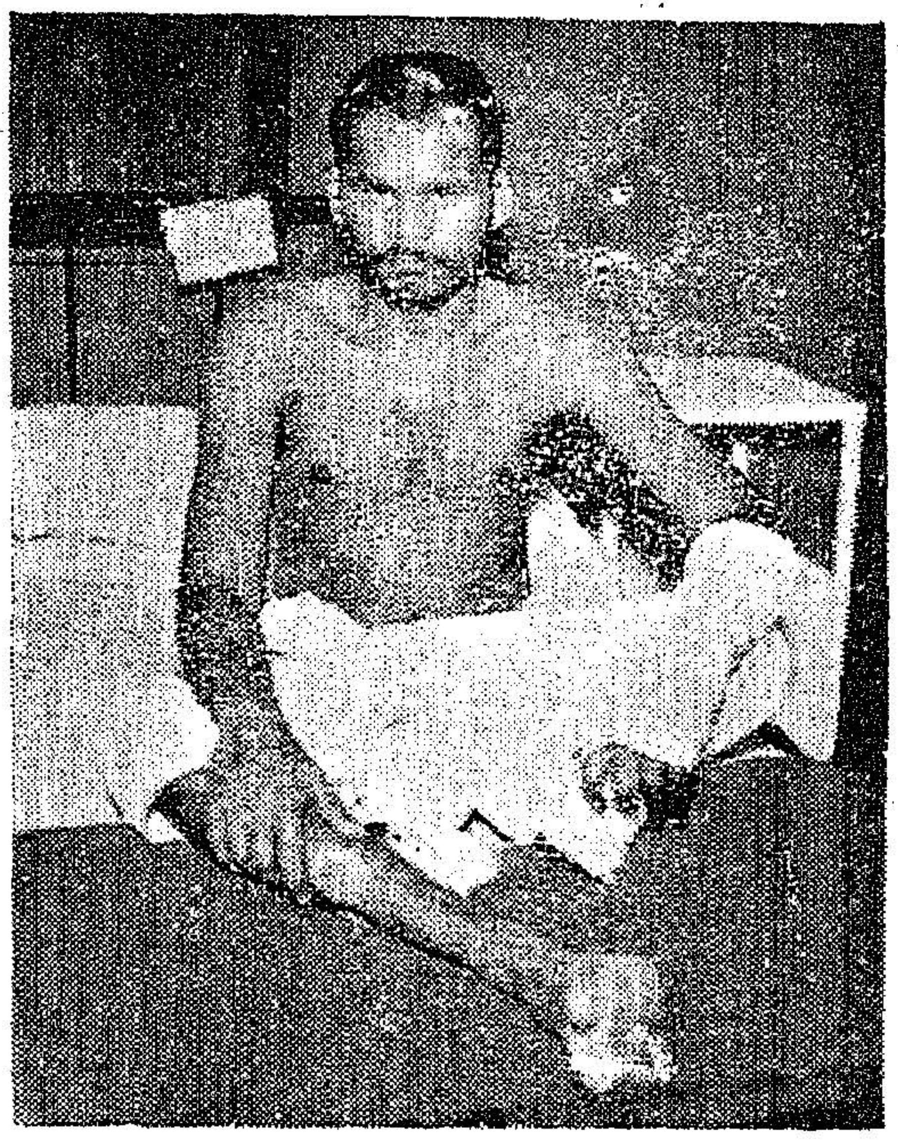
N. K. VENKATESAN

Born on 1st July 1925. Enlisted as Police Constable on 12th October 1944, promoted as Head Constable on 17th April 1959 and Sub-Inspector on 21st May 1964. Native of Big Conjeevaram. He earned 55 rewards. Dependants : Wife and 5 childre (2 sons and 3 daughters).

DEVARAJ

Born on 1st July 1919. Enlisted as Police Constable on 31st July 1946. Native of K. Rajakapatty. Dindigul taluk. He earned 37 rewards. Dependants : Wife and a son.

During the recent agitation many Police officials had laid down their lives while on duty. Some of the photos of the Police officials who had been killed and injured are seen here. The picture of their bereaved families are given in the next page.



MUTHUSWAMI

Police Constable No. 1093, Gudalur Police Station. Injured during the disturbances, is undergoing treatment at present in the Erskine Hospital, Madurai. He is a native of Chatrapatti, Palani taluk.

Bereaved families

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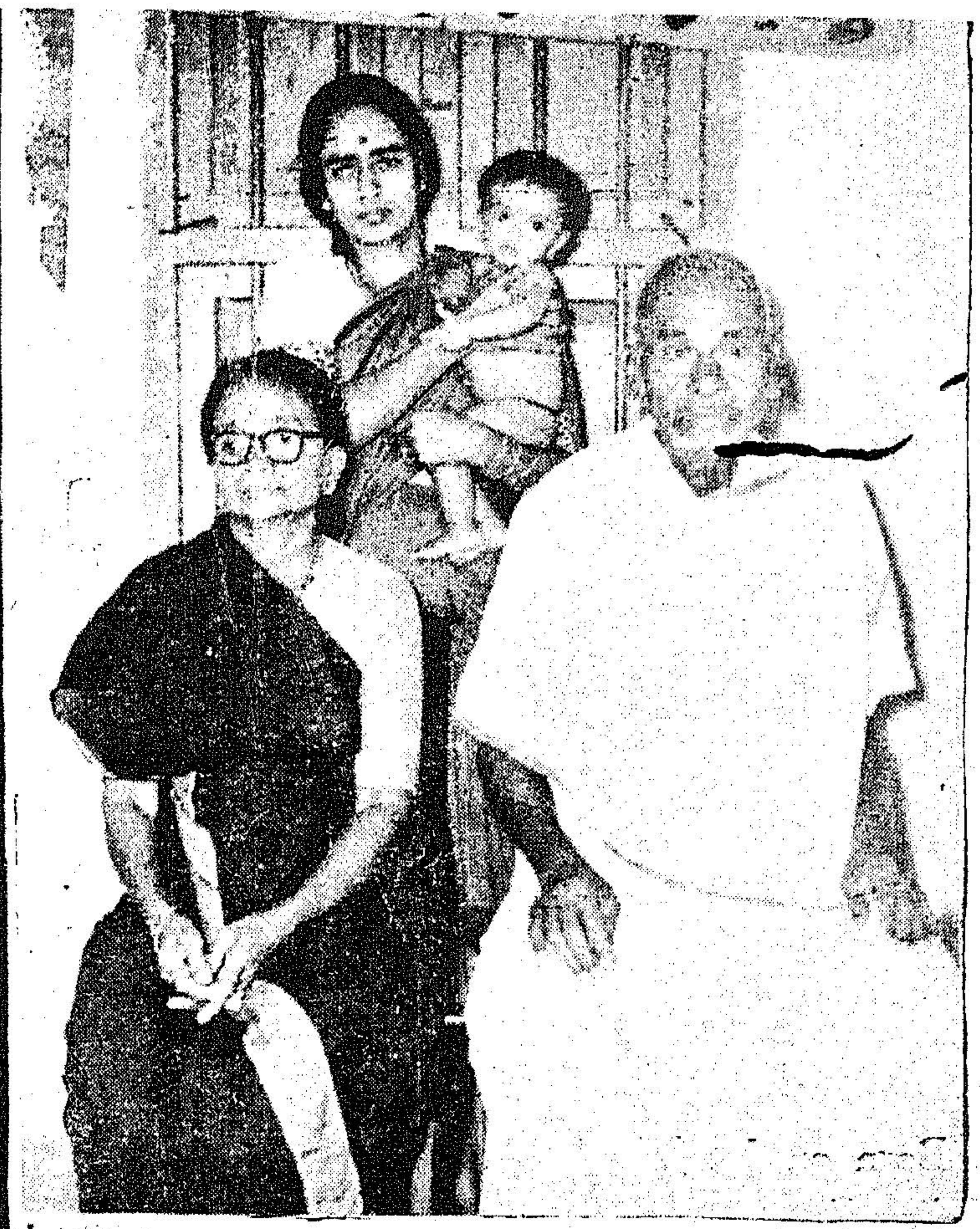
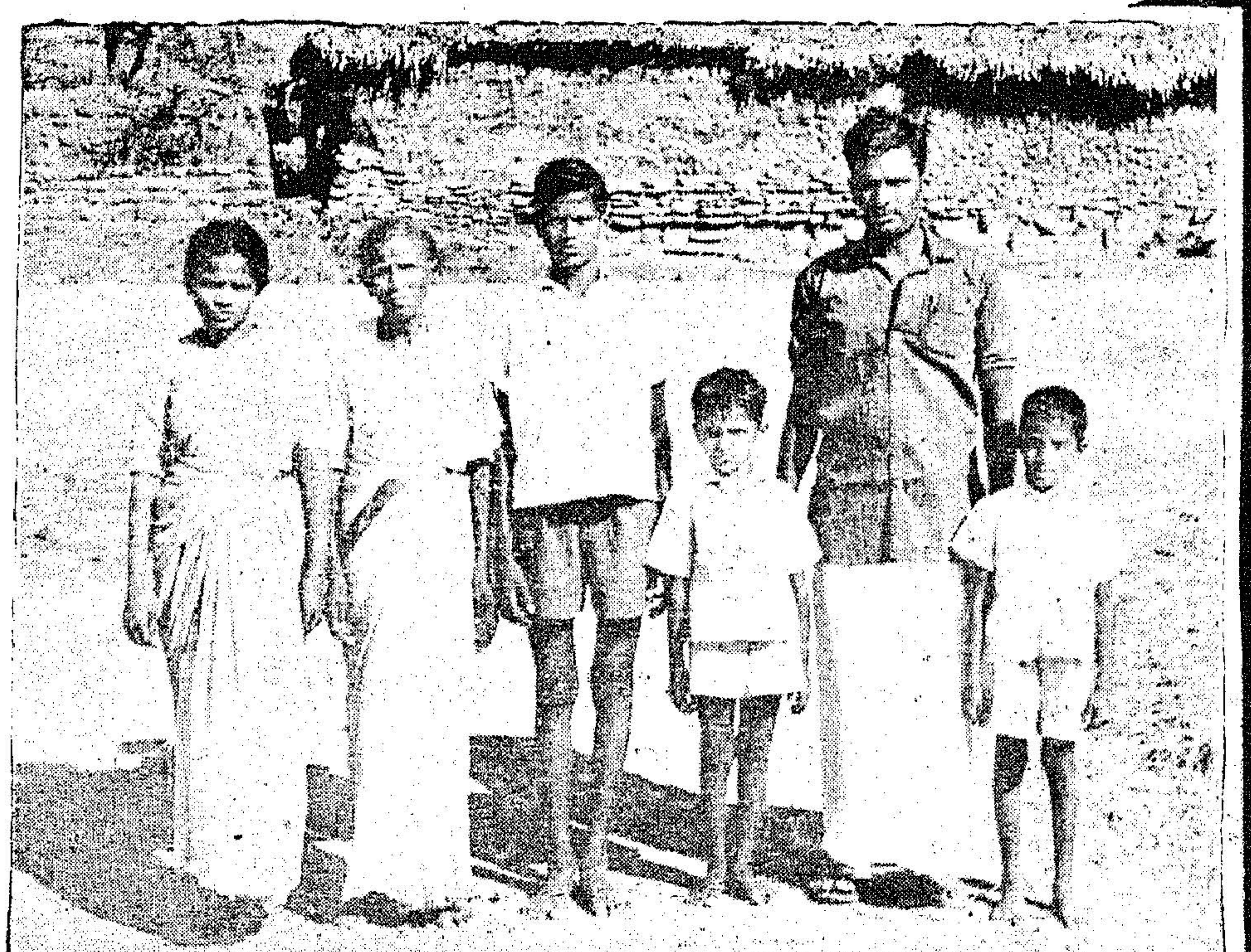


Parents of Sri Venkatesan with their grief striken daughter-in-law.

The family of Sri Ramaswamy, S.I. His wife is sitting.

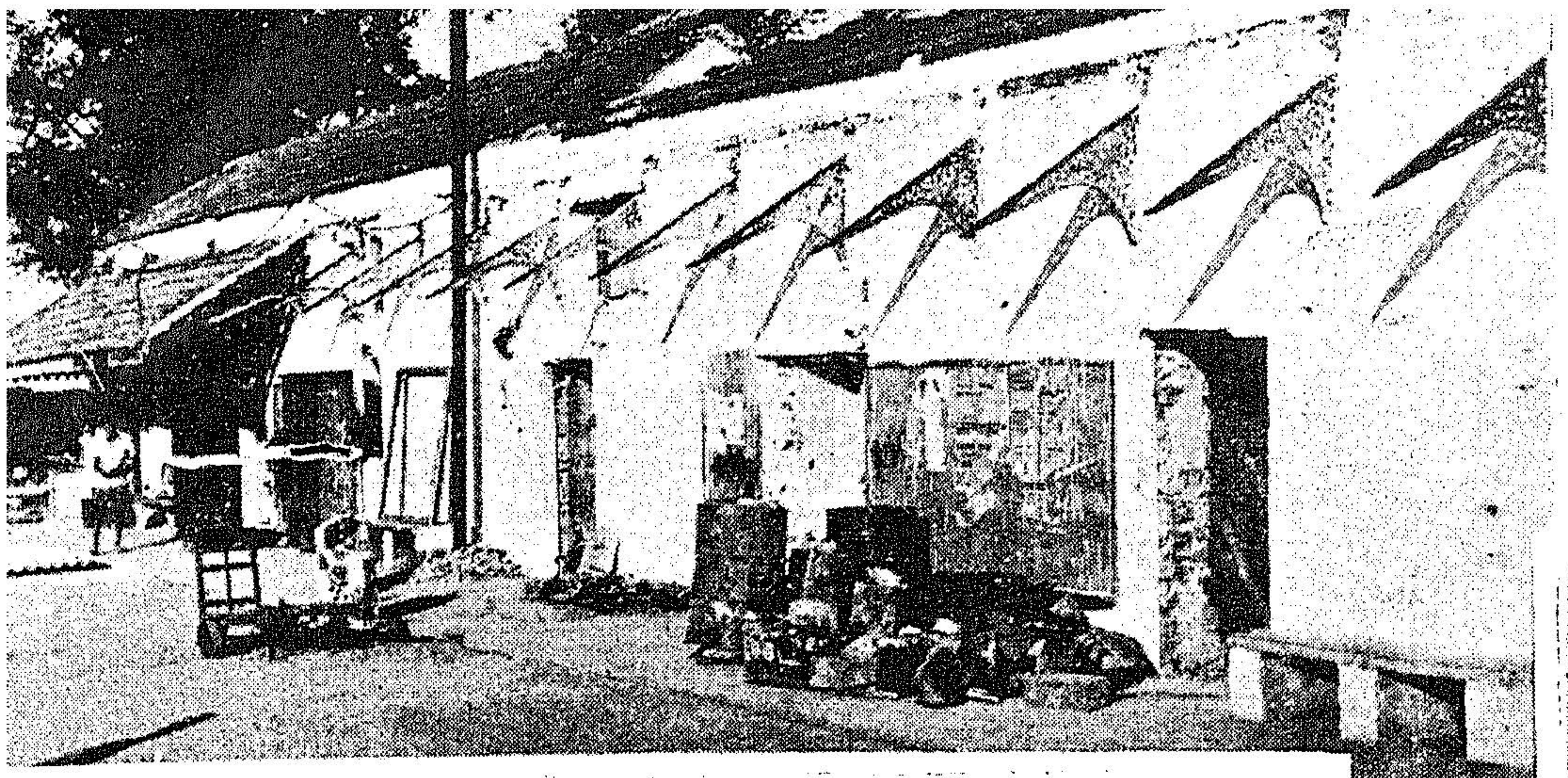
Family of Devaraj, Police Constable with his son-in-law and two grand-children (extreme right).

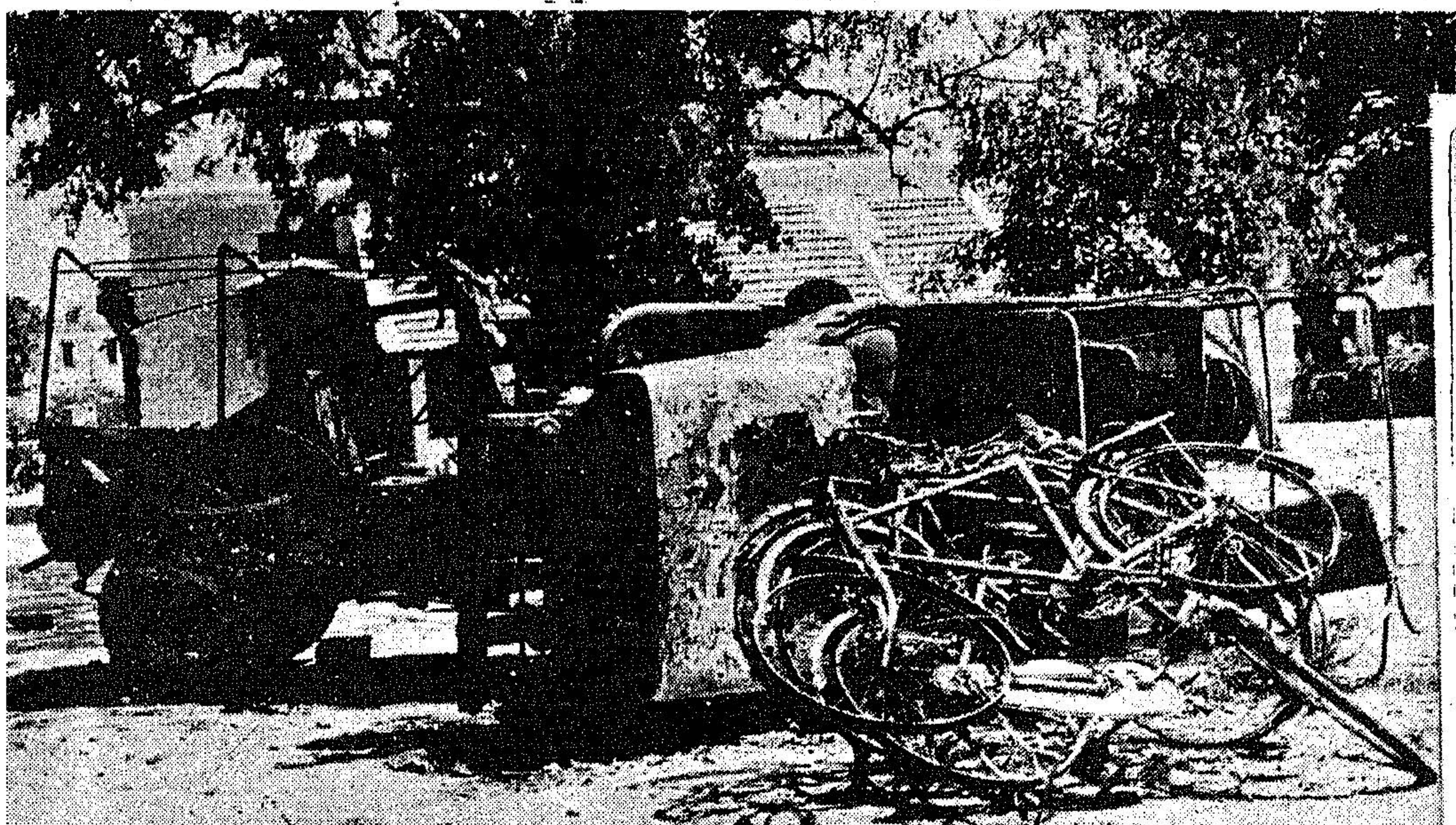


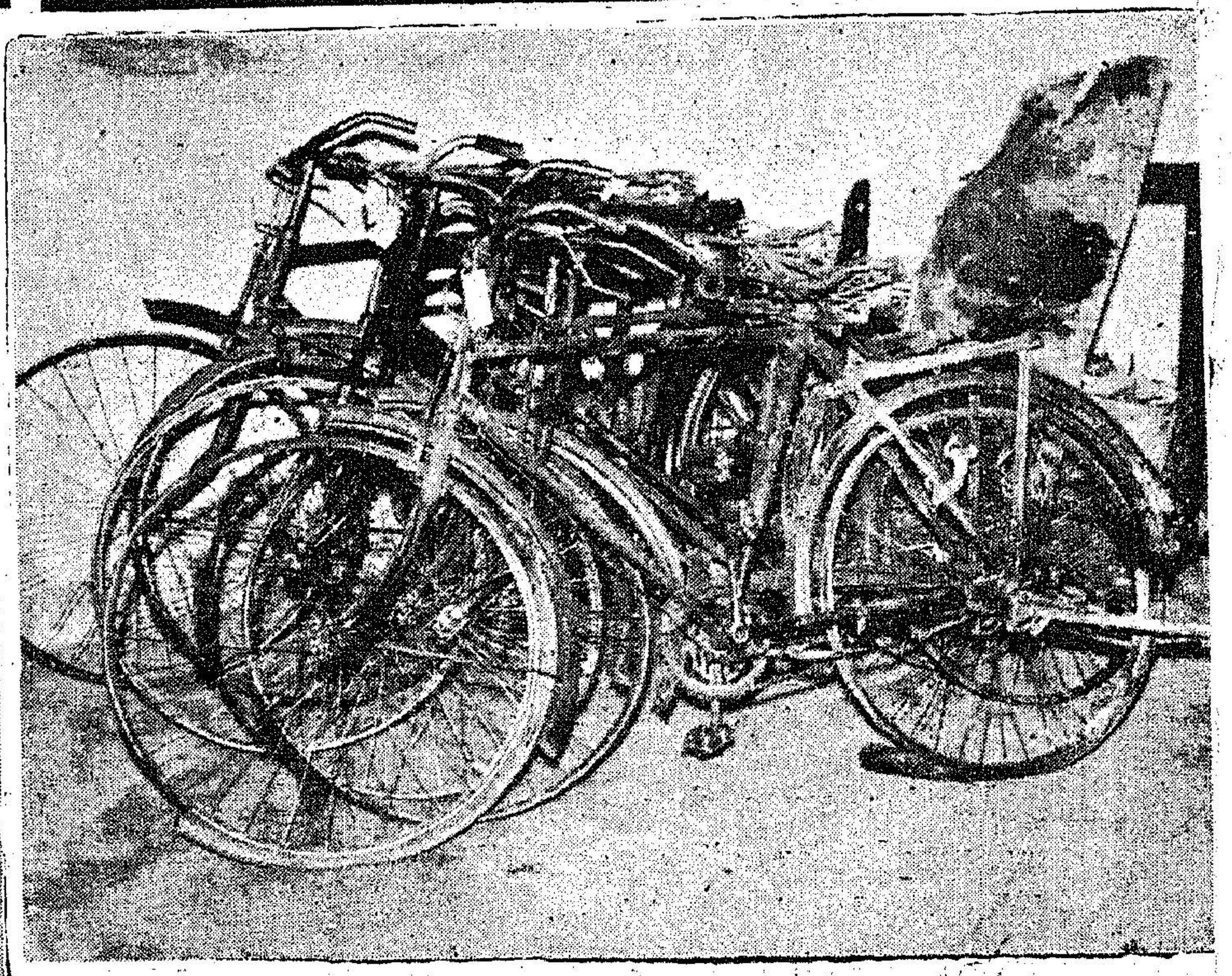
Left: Family of Sri Ramachandra Singh.

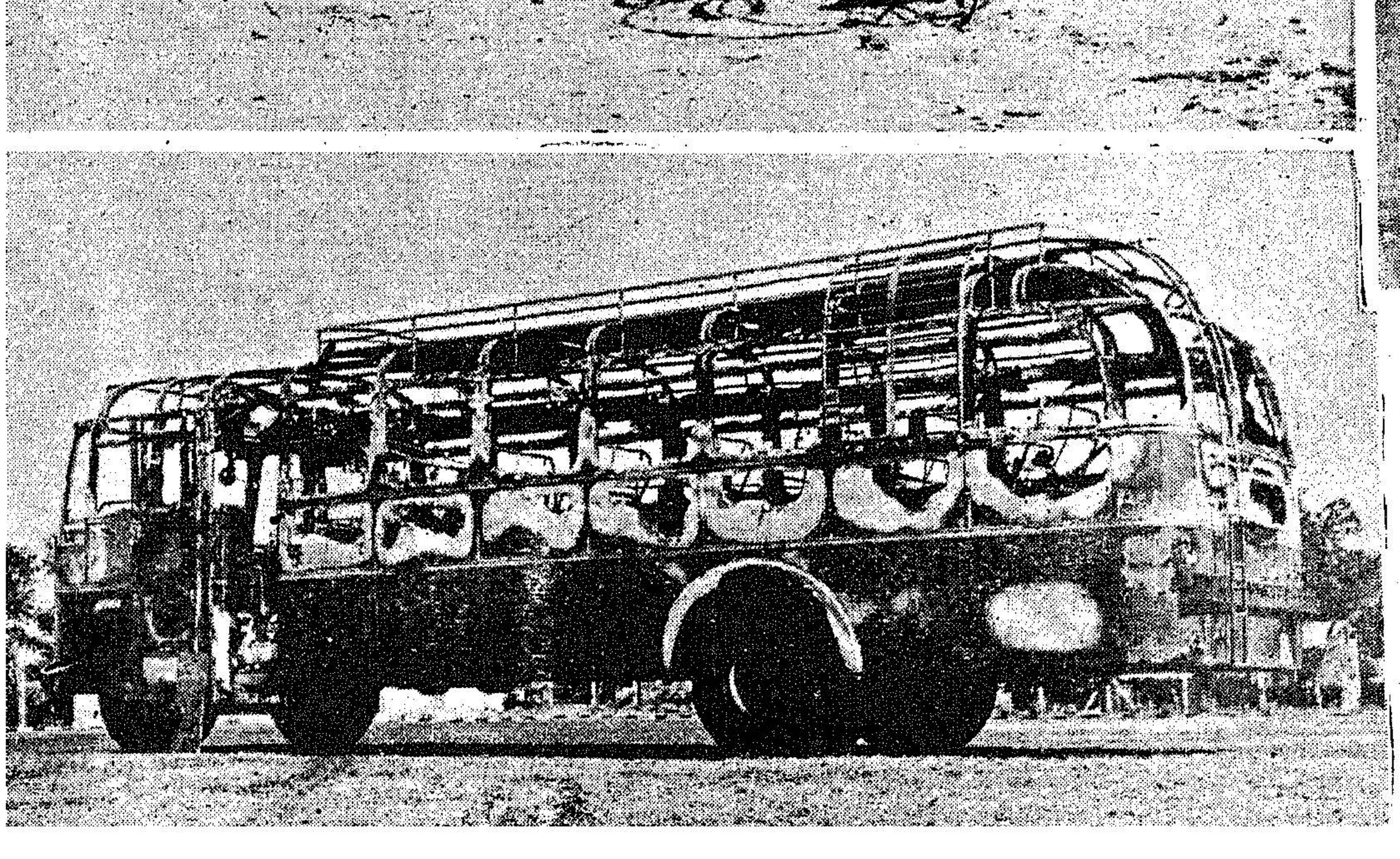
Disturbances

LOSS of PROPERTY









During the recent disturbances all over the State un-social elements caused damages to the public property.

Left: Top to bottom—

Somanur Railway Station was badly damaged during the disturbances; A lorry engaged by the Police was completely burnt by the hooligans in Gudalur, Madurai district: Police jeep and cycles were burnt infront of the Tiruppur Police Station; An Express Bus was also burnt.

Right: Top and bottom—

Debris of the Samathur Rama Iyengar Boys' High School, Pollachi; Dozens of cycles were damaged by the mob at Gudalur.

CENTRAL BUDGET PROPOSALS

Salient Features

The following are the salient features of the tax proposal of the Central Budget presented to the Parliament last February, by Union Finance Minister Sri T. T. Krishnamachari. The Budget is considered balanced one after many years with a marginal surplus.

Excise duty on footwear, cycle parts, cycle tyres and tubes printing and writing paper used in the publication of registered dailies including their weekly issues to be removed.

Effective rates of fabric duties on price controlled varieties of grey as well as processed course and medium cloth are to be reduced by 50 per cent. Duty on vegetable products to be reduced by about 50 per cent. Cheaper type of printing and writing paper and certain other qualities of typing and manifold paper to be reduced by 30 per cent.

Duty on rayon yarn of coarser and industrial deniers, cellulosic stable fibre to be reduced. Marginal reducing of duty on staple fibre yarn.

Duties on a few other items such as silk fabrics, gramophones, cigars and silver are also to be removed. These reductions will mean a loss of revenue of Rs. 29·5 crores. It is expected that these reductions of duty on articles of common consumption will be passed on to the consumer. If they are not, it will become necessary to reimpose the duty in the course of the year.

Certain technical adjustments are being made in excise duties mainly in respect of cigarettes and tyres. These modifications will increase revenue by Rs. 40 lakhs in the case of cigarettes and Rs. 35 lakhs in the case of tyres.

The duty on copper and copper alloys in crude form will be raised from Rs. 300 to Rs. 1,000 per tonne and on circles and sheets, etc., from Rs. 500 to 1,500 per tonne. It is also proposed to raise the duty on steel ingots, plates and rails and sleeper bars by Rs. 10 per tonne, on semi-finished products and bars, rods and structurals by Rs. 15 per tonne, on black sheets and hoops by Rs. 40 per tonne, on skelp by Rs. 50 per tonne, on strips by Rs. 20 per tonne and on galvanised plates and sheets by Rs. 100 per tonne. The effective duty on tin plates and tinned sheets are to be raised from Rs. 165 to Rs. 225 per tonne. The increase of duty on this group will yield an additional revenue of Rs. 15·75 crores.

The total exemption now enjoyed by a large number of smaller powerloom units producing cotton fabrics is being replaced by a small compounded levy of Rs. 25 per annum per loom. The anti-fragmentation provision is also being rephrased.

The net loss of revenue as a result of all the changes in excise duties will be Rs. 13 crores. Because of the steady increase in excise duty revenue from Rs. 145 crores in 1955–56 to about Rs. 773 crores in 1964–65, Government, for the first time in many years are able to give relief to the consumer.

In the field of customs the regulatory custom duty of ten per cent of the value of imported goods imposed

BUDGET AT A GLANCE.

(*In Lakhs of Rupees.*)

Receipts.	*Budget,* 1964–65.	*Revised,* 1964–65.	*Budget,* 1965–66.
(1)	(2)	(3)	(4)
Revenue Budget—			
Receipts .	21,24,30	22,28,41	23,53,09 (—) 6,38
Disbursements.	20,41,31	19,99,26	21,16,48
Deficit (—) Surplus (+) ..	(+) 82,99	(+) 2,29,15	(+) 2,36,61
			(—) 6,38*
Capital Budget—			
Receipts ..	19,92,99	20,87,70	21,83,95 (—) 6,38*
Disbursements.	19,14,89	19,95,00	20,93,79

* Effect of Budget proposals.

ten days earlier the budget session must continue in the present circumstances. In some cases, it is necessary to increase the present rates of duties where there is a very large gap between the landed prices and the current market prices. Therefore, it is proposed to increase the import duty on stainless steel plates and sheets from 30 per cent to 100 per cent *ad valorem* and the duty on steel tin plates from Rs. 100 per tonne plus 5 per cent to Rs. 325 per tonne continuing the present preference of Rs. 20 per tonne where it is applicable.

The duty on non-cellulosic art silk yarn and thread will be raised from Rs. 7·5 per kilogram or 55 per cent whichever is higher to Rs. 10·25 per kilogram or 75 per cent whichever is higher.

The duty on paints, colours, and painters' materials not otherwise specified is to be raised from 60 per cent to 75 per cent, on sodium hydrosulphite from 40 per cent to 100 per cent, on essential oils and perfumery not otherwise specified from 75 per cent to 100 per cent and on paper not otherwise specified but excluding newsprint and printing and writing paper from 50 per cent to 75 per cent.

The statutory import duty on raw cotton will be raised to 50 Paise per kilogram.

The total additional revenue from customs will be Rs. 14·5 crores.

In order to mitigate the disadvantages of new export industries which have yet to achieve their full competitive position in the world markets, powers will be taken to issue tax credit certificates to exporters up to 15 per cent of the value of such exports. The tax credit certificate could be used for payment of taxes or refunded in cash to the extent that their value exceeds the tax liability.

Corporate Taxation

The list of industries producing articles mentioned in Part IV of the First Schedule to the Finance Act, 1964, which are entitled to certain tax benefits, is to be enlarged to include lime stone, flame and drip proof motors, malleable iron and steel castings, calcium ammonium nitrate and ships.

The tax concession given to section 104 companies wholly or mainly engaged in the manufacture or processing of goods or in mining or in the generation or distribution of electricity or any other form of power whose whole income did not exceed Rs. 5 lakhs is to be enlarged. All such companies, except foreign companies, will be liable to tax at 50 per cent on the first Rs. 10 lakhs of their income irrespective of the total size of their income. The penalty rate of taxation for non-distribution of profits is to be reduced to 25 per cent for companies other than trading companies.

Manufacturing companies have been given certain concessions to enable them to build up adequate reserves. For non-trading companies it will be provided that the higher statutory percentage of 90 per cent for compulsory distribution of profits will be attracted only if the accumulated profits and reserves exceed twice the amount of their paid up capital and loan capital or the value of their fixed assets.

At present, where in a public company, 51 per cent or more of the shares are held by another company in which the public are substantially interested or by a 100 per cent subsidiary of such a company, the first

INCOME-TAX LEVEL LOWERED

While streamlining the tax structure and replacing the present taxes by a revised and unified schedule, taxes of personal income have been lowered at all levels. The highest marginal rate on unearned income will go down from 88·25 per cent to 81·25 per cent and that on earned income from 82·5 per cent to 74·75 per cent. That is to say the peak taxation will be reached in respect of income above Rs. 3 lakhs of earned income and above Rs. 70,000 of unearned income.

mentioned company does not qualify for being regarded as a company in which the public are substantially interested. It is proposed to change this position.

It is proposed in the case of public companies to refund the tax on any capital gain made on the sale of land and buildings in overcrowded large cities to the extent that capital gains are reinvested with prior approval of Government in land and building including housing for employees in a new area.

It is proposed to reduce the standard rate of development rebate to 15 per cent except in the case of industries included in a new Fifth Schedule to the Income-tax Act. Industries included in this schedule can claim a development rebate of 25 per cent. The rebate for coal-mining machinery and for ships will continue at the rate of 35 per cent and 40 per cent respectively. The undertakings for which rebate is now being reduced will however continue to enjoy the existing benefits up to the end of March 1967.

A ceiling limit is proposed to income-tax, including the tax charged with reference to distribution of equity dividends and sur-tax at 70 per cent of the total income of the company. Any excess of the aggregate tax liability over this limit will be allowed as a deduction. This provision will apply to Indian companies and any other company declaring its dividend within India in which the public are substantially interested.

Tax credit certificates to the extent of 25 per cent of the Central Excise Duty paid by any manufacturing unit on production in addition to its production in the base year may be issued to that unit. Also tax credit certificates will be issued for 20 per cent of the additional corporation tax including sur-tax paid by any manufacturing company over the corresponding tax paid during the base year. This would be further subject to the limit of 10 per cent of the overall tax for the year concerned.

GOLD BONDS TO BE REFLOATED

It is proposed to float once again the Gold Bonds. The terms will be the same as the old bonds except in one respect. The new bonds will carry interest at seven per cent per annum. Those who subscribed to the first series and thus co-operated with Government at a time of national crisis will also have the benefit of the higher rate of interest for the remaining years of the currency of the Bonds held by them. The new Gold Bonds will be in the market for three months till the end of May 1965.

UNACCOUNTED MONEY

Those persons who have undisclosed income to declare can made a declaration with relevant particulars and at the same time deposit in cash at the Reserve Bank of India sixty per cent of the income declared. The remaining 40 per cent of the income so declared can be taken to the assessee's book under intimation to income-tax authorities. No further question of assessment in regard to the income so disclosed will arise and the identity of the persons will not be revealed. This offer will be open only for three months from now, till the end of May. In order to induce people to come out quickly, a rebate of five per cent of the tax on all incomes declared and tax paid thereon in the month of March will be given.

The recommendations made by the Tea Finance Committee are to be accepted in a modified form.

In the case of companies a deduction will be allowed for expenditure incurred by them for payment towards family planning among their employees. Where such expenditure is of a capital nature, it will be allowed as a deduction over a period of five years.

Personal Taxation

An additional wealth tax will be levied on vast accumulation of urban property in towns with a population of one lakh or more. In view of differences in urban property values in towns of different sizes, it has been decided to provide for different exemption limits on the basis of population. The exemption will vary from Rs. 2 lakhs in the smallest of ranges to Rs. 5 lakhs in the highest. Provisionally the revenue from this source has been put down at Rs. 1·5 crores.

Exemption from wealth tax for five years for equity investment in new industrial companies is to be restored. This concession will apply to companies issuing capital for the first time after February 28, 1965.

Companies issuing bonus shares pay a tax of 12½ per cent on the face value of these shares. Such companies will be allowed a rebate of up to 10 per cent of the face value of bonus shares from the capital gains tax on such shares.

Incomes in future will be chargeable to tax, subject to relief, on account of personal allowance for every individual of Rs. 2,000 with an additional allowance of Rs. 1,500 for a married individual and Rs. 400 for each dependent child up to a maximum of two children. For a married individual with two dependent children no tax will thus be payable up to an income of Rs. 4,300 as against Rs. 4,000 as at present.

Another change towards simplification relates to deductions in respect of contributions to provident fund, insurance premiums and the accumulative time deposit scheme. Apart from raising the money limit for concession from Rs. 10,000 to Rs. 12,500 for individuals, it is proposed to give the concession by a straight deduction from income of 50 per cent of the amount contributed to the items eligible for the relief.

A new provision is being introduced for exempting from tax income up to Rs. 2,400 on account of institutional care of handicapped dependents. In the case of non-institutional care, the limit will be Rs. 600.

The present tax concession in favour of foreign technicians is for a period of three years with a grace period of two years where the employer pays the tax. For certain industries, the services of such technicians have to be retained for a longer period. It is, therefore, proposed that the second period can be extended to three years with Government's approval.

Tax relief is to be given to partners of firms engaged in the profession of Chartered Accountants, Architects, Solicitors and Lawyers on amounts spent for the purchase of life annuities commencing at an advanced age, under an approved annuity scheme or sums

CENTRAL BUDGET
TAX CONCESSIONS, ADJUSTMENTS—IN A NUTSHELL

Excise duties on commodities of common consumption removed or reduced
Increase in Excise Duties on certain Scarce Materials
Compounded levy for smaller powerloom mills producing cotton fabrics simplified
10 *per cent regulatory Customs Duty to continue and increased in some cases*
Tax credit certificates to exporters
Tax benefits to some more industries
Tax concessions for certain section 104 *companies*
Refund of Tax on Capital gains to Factories shifting from congested cities
Standard rate of development rebate reduced for certain industries
Ceiling limit to corporate Income-tax and surtax
More tax credit Certificates in respect of Excise Duty and Corporation Tax
Recommendations of Tea Finance Committee accepted in modified form
Additional Wealth Tax on vast accumulation of Urban Property
Exemption from Wealth Tax on new Industrial Companies restored
Tax discrimination against unmarried persons removed
Lowering of taxes on all levels of personal income
Highest marginal tax rate on earned income reduced to 74·75 *per cent*
Highest marginal tax rate on unearned income goes down to 81·25 *per cent*
Tax relief to partners of certain professional firms
Existing concessions on Estate Duty and Gift Tax enlarged
Gift Tax exemption for donations to places of worship
Incentives for declaring unaccounted money
Gold bonds to be refloated

contributed by them to an approved fund for providing retirement benefits. This relief will be in the form of a straight deduction of such payments from their total income subject to a limit of ten per cent of the total income or Rs. 5,000 whichever is lower.

When foreign investor reinvests the sale proceeds of their industrial holdings in approved industrial securities, rebate of capital gain tax, if any, due on the original investment will be allowed in proportion to the amount reinvested.

In respect of Estate Duty and Gift Tax, some of the existing concessions are to be enlarged. Certain provisions will be amended where their interpretation has been causing hardship to assessees.

PLANNING IN MADRAS STATE—*(Continued from page 15).*

projected from the Fourth Plan. The State will also endeavour to secure a fair share of Central investment in industrial development. The Neyveli-Salem Steel Plant is one of the important projects proposed for execution in the Central sector in the Fourth Plan.

An allocation of Rs. 217 crores has been proposed for power development. Apart from the Hogenekkal Hydro-Electric Scheme, which will need the concurrence of the Government of Mysore, the following new generation schemes have been proposed for inclusion in the Fourth Plan :—

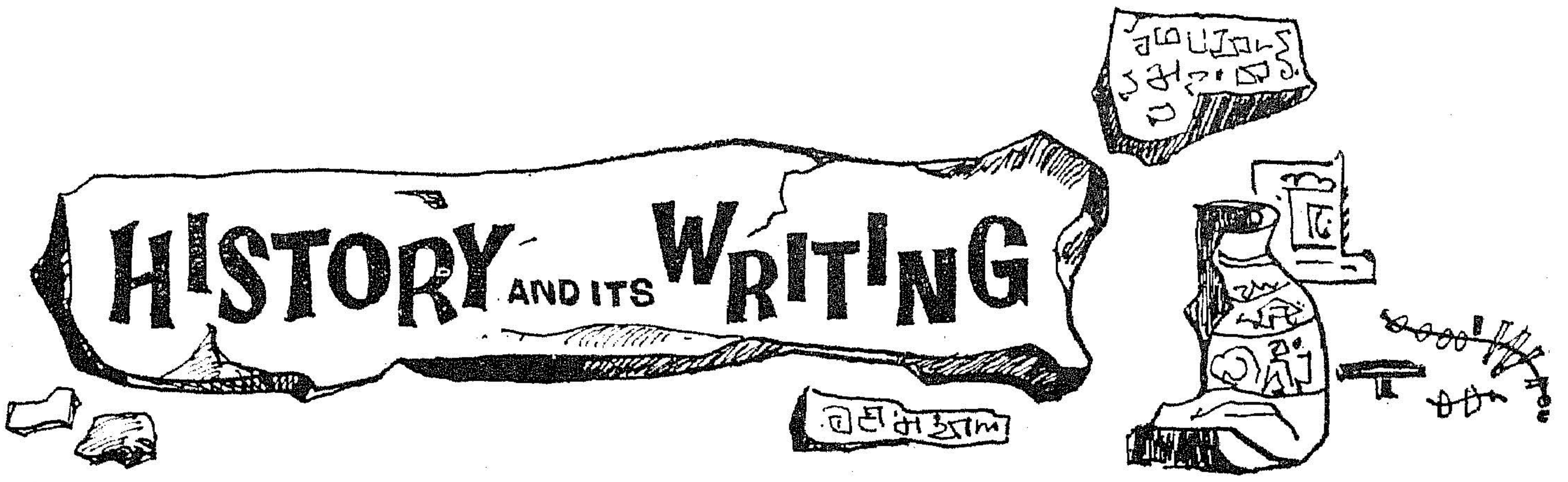
Scheme.	Installed capacity.	Eetimated cost. (Rs. in crores.)
1. Thermal Station at Ennore	300 MW	28·0
2. Thermal Station at Tuticorin	100 MW	11·1
3. Upper Thambaraparni Hydro-Electric Scheme.	155 MW	17·8
4. Pandiyar-Punnapuzha ..	70 MW	9·2
5. Upper Manimuthar ..	95 MW	11·7
6. Paralayar Hydro-Electric Scheme	30 MW	3·8
7. Suruliyar Hydro-Electric Scheme	25 MW	3·2

Further expansion of the Thermal station at Neyveli and the establishment of a nuclear plant are among the other schemes to be taken up as Central projects in the Fourth Plan. The Rural Electrification Programme will be pushed through further and provision is being made for connecting 2·5 lakhs of pumpsets to power.

Under Technical Education, apart from providing for expansion of the existing institutions to the extent feasible, it is proposed to open three new Engineering Colleges and seven Polytechnics. The Fourth Plan as proposed by the Planning Commission marks a distinct departure from the earlier Plans in the emphasis it lays on expansion of Social Services. The provision for social services, such as Education, Medical and Public Health, Water-supply, Housing and Welfare of Backward Classes is being stepped up from Rs. 76 crores in the Third Plan to about Rs. 229 crores. Besides ensuring greater equality of opportunity to the different sections of population, the development of social services will also be of significance as a measure of redistribution of income in favour of the poorer sections.

The State's Fourth Plan drawn up on these lines provides for an outlay of Rs. 750 crores. A provision of Rs. 50 crores has in addition been sought for Centrally-sponsored schemes to be implemented by the State. These will be supplemented by investments in the Central and private sectors. While the plan as framed by us will be subject to further discussion with the Planning Commission, it is clear that the Fourth Plan will be a bolder Plan and will present a greater challenge to the administration and its organizing capacity.

The success of the Plan will, above all, depend on maintenance of an atmosphere of peace and unity of purpose in which the administrative machinery can concentrate on the tasks of development. Irrespective of differences in political ideology, we have in the last 10 to 15 years forged a common approach to the problems of development of our State and it is this consensus which has enabled the State in spite of several natural handicaps, to register an encouraging advance on several fronts. The events in the last few weeks have disturbed the atmosphere of peace which we have all endeavoured to maintain. I can understand the apprehensions and feelings which have swayed the students in this State. But their agitation was soon taken advantage of by unsocial elements, resulting in loss of life and property. We are all profoundly distressed at the suffering which our people have passed through. The administrative organization headed by the District Collectors and our Police forces have displayed an exemplary sense of devotion to duty in a very difficult situation. The assurances of our late Prime Minister which have now been solemnly reaffirmed by national leaders and will now be formally placed on the Statute book should help to allay whatever genuine apprehensions which the students and the public may have had in regard to Hindi. They may rest assured that the State Government will keep a vigilant watch over their interests and ensure that they are not in any way placed in position of disadvantage in regard to opportunities for employment and advancement in public service. We should all now work together to restore an atmosphere of calm in which we could rededicate ourselves to the development of Tamilnad which we all love.



PROFESSOR K. A. NEELAGANTA SASTRI.

The importance of collecting and preserving the ancient Historical records is discussed in this article. Historical records reveal past history of the Nation and much more says the Author.

History as now understood is really a new discipline ; even in the west it was not known before the nineteenth century. Almost the only historian of an earliar time who approaches modern standards is Gibbon. All other writers including our own Kalhana of Kashmir wrote histories of sorts. Until the last century history was often looked upon as a branch of literature or rhetoric.

The nineteenth century was the great period of modern historical writing ; the age of great historians in almost all western countries and the period when the new outlook and methods of history were developed and perfected. For a long time the question was debated whether history is a science or an art. In the course of the debate, one English historian went so far as to say : History is a science, no less and no more. But the verdict of another English historian may well be taken to sum the position correctly and neatly, viz., that history is scientific in its method and an art in its presentation.

Lack of historical sense

We Indians have often been accused of a lack of historical sense, and I can recall the names of several eminent Indians of modern times who have without hesitation admitted the correctness of the charge. Not only have we missed producing a historian like the Greek, Herodotus or Thucydides or the Chinese su-ma-chien ; but considering the size of our country and the length of its history, the volume of our historical records is very little. The archives of states, which must have existed and are occasionally mentioned in literature and inscriptions, have perished almost completely with the exception of some relatively recent village Kaifiyats and revenue accounts. We have no travel records or diaries, though Ananda Ranga Pillai's Tamil diary is a unique exception. We often learn more about our country in the different periods of its history from foreign sources than from our own.

Our whole attitude to history and the record of it seems to have been different from that not only of Western countries, but also of a country like China. We have taken with more alacrity to myth making and philosophy than to sober recording of facts as they occurred. Our literature is rich in fables, puranas, and romances, and legends, and even now some professed students of history are unable to grasp the difference between legend and history.

Religion pervades almost all our activities, and the historian has much reason to be grateful for one religious injunction which made the making of gifts and donations the primary social duty of the well to do, and another injunction which laid down that such gifts be recorded in detail on stone and copper with a description of the donor and donee and the ancestry of each at least up to three generations. Most of our ancient history known to-day has been derived from such donative inscriptions on stone and copper. And it is my purpose to tell you something of a recently discovered copper plate of the Pandyan dynasty which lights up a dark corner of South Indian history. This grant is said to have been received from Tirunelveli through Sri P. K. Arunachala Gounder, Professor of Tamil in the M.D.T. Hindu College, Pettai. I understand that the plates were discovered accidentally in the course of digging a well in the Dalavaypuram village of the Kovilpatti taluk. Dr. G. S. Gai, Government Epigraphist for India, has kindly furnished me, on request with a transcript of the entire charter.

Early Pandyan history of the family of Kadungan and his descendants extends from the middle of the sixth century A.D. to the first quarter of the tenth century when the Chola Paranthaha I conquered the Pandya country and assumed the title Maduraikonda. This history rests altogether on two copper plate grants and two stone inscriptions bearing dates in a wellknown-era. The grant I speak about falls in date between the

two plates I have mentioned, viz., the Velvikudi and the larger Sinnamannur grants, and is nearer the latter than the former. It gives us much new information on the genealogy of the family and on the history of the early ninth century. The fresh information we get here clears up some difficulties in the history of the Pandyas and the Pallavas of the time. This grant has not yet been fully studied, and as usual it raises some new problems while it seems to give a clue to the solution of some others. It will take some time for a general consensus to arise among scholars on the definitive interpretation of the new facts. I shall put forward here a tentative view which may provide a basis for discussion.

We have here a set of seven plates the first and last of which are engraved only on the inside, the rest being written on both sides and numbered. The writing is Grantha for the first part which is in Sanskrit verse and extends to sixty-five lines, and Vatteluttu for the longer Tamil portion extending from L. 66 to L. 238, grantha being employed even here for Sanskrit names and words just as a very few names of places are written in Tamil in the Sanskrit portion. The writing clearly belongs to the late ninth or nearly tenth century. The plates are strung on a ring with a seal bearing the emblems of two fish (Pandya) along with the tiger (Chola), and the bow (Chera) on a smaller scale and the legend in anushtup verse reads.

Samasta Vasudha dhisa Cudaratnamsura jisu
Sasanan Jagati bhartur idam Jatilavarmanah

The most notable new fact we get from these plates is that the Pandya Sri Mara Srivallabha (815–62 A.D.) had a Telugu Choda queen by name Aggalanimmati; by her he had the son named Parantaka Viranarayana who issued this grant in his forty-fifth year. Srimara's father-in-law is called Srikantha, who is called the nephew of the victorious Manabharana, the chief of Tondiyar; Srikantha is also described as Mayilaiyar Kon and Pottappikulachola. The title of the nephew, Lord of Mayilaiyar, Mayilai is Mylapore beyond doubt, shows that the uncle was Tondaiyar Kon, Lord of the Tondaiyar, people of the Tondaimandalam. This important new fact explains, I think, the big gap that has long been known in the reign of the Pallava king Dantivarman (796–846 A.D.) whose inscriptions are not found between 817 and 845; between his twenty-first and forty-sixth reignal years. So it seems that for about three decades, the heart of the Pallava country had passed under the occupation of the Telugu-Codas; their neighbours to the north-west; neighbours are natural enemies according to our traditional, political philosophy and according to that rule the Pandyas were also the enemies of the Pallavas, and the two enemies joined together and contracted the dynastic alliance. The Pallavas obviously suffered a great loss of their power as a result, and the Telugu-codas occupied much of their territory during the part of Dantivarman's reign. The situation was redeemed by the martial ability of Dantivarman's son Nandivarman III who won a decisive victory against his father's foes at Tellaru in Wandiwash taluk of North Arcot district, sometime about 846 A.D. Till now it was a puzzle why a battle between the Pallava and Pandya should have taken place so far north; now we see the reason in the occupation of Pallava territory by the Telugu Codas and in the dynastic alliance between them and the Pandyas by the marriage of Srimara Srivallabha to Aggalanimmati. The importance of the battle of Tellaru was long known because in his inscriptions Nandivarman III is very often called the 'Nandivarman who gained the throne by his victory at Tellaru'. The *Nandikkalambakam* informs us that this victory was followed by a Pallava invasion of the Pandya country and that this inroad reached their capital city of Madurai on the banks of the Vaigai river.

Historical records

Another fact of importance is the statement that the grant was issued by Viranarayana in his forty-fifth year when his elder brother Varagunavarman 'was ruling the world thinking always of the god Pinakapani who bore the young moon in his matted locks', viz., God Siva. This at once reminds us of the story of the friendship between Manikkavasagar and Varagunavarman, and goes far to confirm a date in the ninth century for this celebrated Saiva saint. But this is not the whole truth about Varagunavarman, and there is much evidence, literary and epigraphic, to show that he took active interest in politics and had close personal relations with Nandivarman's son Nripatunga. There are also references to rival Pandya princes who fought against both Sri Mara Srivallabha and his son Viranarayana, and our record also says that Viranarayana defeated an elder brother of his in battle. These data may be interpreted in different ways, but I cannot attempt to discuss them here. Our copper-plate is important in other ways also for the administration, economy, and literature of the time. But I have said enough to show the importance of the search for and study of such historical records for our understanding of the past; and this work can proceed satisfactorily only if public interest in it becomes much more active than it has so far been. Small local associations created round colleges and schools can find scope for much interesting and useful work in this line, viz., the collection and study of historical records, and also their safe preservation in a common centre like the Madras Record Office.

—*Courtesy* : *A.I.R.*

Problems of Adolescence

Adolescence is a critical period in man's life. The future of a country is bound up with how the growing man hood and womanhood are guided, directed, controlled and trained during their most impressionable period. The problems of adolescence in India to-day, are more like what the advanced countries faced many decades ago. We had the examples of these advanced countries like America and England before us. We can adapt the various solutions tried by them and found effective as " prophylactic " in our country to forefend undesirable developments before it is too late.

Teen-age is strictly the period from thirteen to nineteen years which end in "teen" but the word is used here more to indicate the third stage in human growth after infancy and childhood, a stage of adolescence before full adulthood and the later mature years. This is the age of growth, physical and mental, of preparation for manhood and its duties by observation, education and training and covers the period spent by the fortunate ones among them fully in schools and colleges.

Teenagers from that part of the people of any country or race which, in a matter of few years more, would form the bulk of its active citizenry. It is only obvious that if adequate thought is not given to them at that stage, the country is bound to leave its fortunes to chance, and instead of a well-equipped, well-trained and well-disciplined body of citizens, they would be more like the flora and the fauna in a forest growth each plant vying with the others for room and light and each animal living in constant antagonism with the others striking a low balance of growth and development.

Formative Period

There has always been controversy as to the year by which the formative period of a child is fairly complete. It is supposed to have been an old saying that within the first five years, a child's habits and way of thinking and acting are set. In this connection the following striking observation of Mahatma Gandhi is relevant :—

" We labour under a sort of superstition that the child has nothing to learn during the first five years of its life. On the contrary, the fact is that the child never learns in after-life what it does in its first five years."

It is common experience that during the teens, a boy passes through the most critical stage of his career. Till then he is practically within the fold of his family except among the poorest of the land, going to school and spending the best part of the day among boys of his age and million following the tradition and the routine of the school. Now he sees more of the outer world. His curiosity is roused, his physical and other atilities grow daily, his mind opens out to new horizons and new vistas. He hears of what his immediate seniors have done and very often he is told what his parents and friends expect of him. His aspirations are kindled and his desires are roused and he forms high ideals and ambitions to excel others and show himself up as superior to them all. He takes great interest in his personal looks and clothing, becoming conscious that he is growing to be an important entity and according to environmental influences and the examples of others, he forms in his mind certain objectives which he wishes to reach. He becomes keen to secure the esteem of his colleagues the approbation of his teachers and parents and wishes to secure the leadership among his comrades. This is also the period in which he proceeds, as it were through a screening operation. If he has not the fire within him, he drops either into the middle of the herd in which on all sides he is contained and well-protected or drops on the way as a casualty.

Cause of Ambivalent attitude

General experience shows that while influences at work during infancy and the childhood do have great power for good or evil in moulding a child, the teenage

period offers an impressionable stage at which the results of these influences can be countered or corrected and a boy's future assured. Many a mischievous youngster turns out to be an active person directing his energies towards profitable and constructive directions acquiring distinction in different fields. But if neglected during that period or exposed to bad weather and undesirable influences he may tend to become sullen and dull and steadily lose his enthusiasm, zest for life and interest in improvement and fail in the race of life.

In this atomic age, a boy in his later teens in India studying in College, is often puzzled by the spectacular advances made by the Western countries and the Soviet Union on the one hand and the miserable scenes of poverty, disease and illiteracy in India on the other. He finds it difficult to reconcile the well-known religiosity of his countrymen with the (seeming or apparent) lack of any tangible reward. But he also learns that Europeans, Americans and Russians who are not apparently religious enjoy a much higher standard of living. This brings about a gradual loosening in feelings of piety on the part of some University students in our country, an irreverence towards spiritual values or at least an ambivalent attitude towards life, if not a positive leaning towards atheism.

On the increasing complexities in Urban centres such as Calcutta, Madras and Bombay, children do not get the constant watch, attention and guidance from the parents, the family and the community as obtained in the past and still obtains in villages. Children particularly of the poor classes do not attend schools and are left uncared for. Many of these vagrant boys are picked up by clever and unscrupulous criminals who teach them to pilfer from railway stations and yards or turn them into pick-pockets or initiate them into more advanced criminality. Girls could be and have also often been used for worse.

Although, the incidence of juvenile crime in our city and the country is not yet near so big as in the industrialized West, enough signs and portents are already noticeable in India, to justify an early collaring of lop-sided adolescent exuberance. We have to learn from the mistakes as well as the progress made by Westerners. And the guiding principle in this is, of course, " Prevention is better than Cure. "

In advanced Countries

The subject of "Teenagers' or adolescents has received considerable attention in advanced countries and there is quite a large volume of literature particularly in England and America where the special significance of this stage in the life of a person has been fully appreciated and serious thought given to it. The importance of making field studies to have authentic information in the problem so as to correctly assess its size and its needs has been duly recognized by them and such studies have been made and action taken on the basis of such studies.

Despite the race for mechanisation for prosperity and affluence, the real progress of a country does not rest on the machines, but on the men they make them and the men that work them and even more on the men that can make better machine and work them better. Adolescence is a critical period in a man's life. And the future of a country is bound up with how the growing manhood and woman-hood are guided, directed, controlled and trained during their most impressionable period and helped in their self-development and their capacity for furthering economic growth imbued with a spirit of service to the country.

There is at present a large gap in our way of planning for the development of the largest potential wealth of India, viz., its manpower in the critical period of its growth. Our attention should, therefore, be directed towards the teenagers—both boys and girls—to find out how they are utilizing their leisure time.

Telling the Teenager

Mrs. Rose Hacker's book entitled 'Telling the Teenagers' a book which, to quote Mr. Hugh Lyon from his foreword, is the worthy fruit of so much knowledge and experience. As is said therein, the problem of teenagers is the most intractable problem and she had chosen it and made a frontal attack upon it. From fifteen to eighteen, only a small fortunate minority are still attending schools. All other teenagers inhabit that 'untouched' area where the discipline of schools give way to the freedom of shop or factory, where the strict home becomes irksome and the lax home reaps the harvest of its negligence, where the church or club make but limited and largely ineffectual headway. Still children in body and mind, with an outlook varying from complete ignorance to precocious sophistication, these young people are thrown into an adult world, where they are subjected to every kind of questionable influence from without and unregulated impulse from within. The younger child has protectors, the adult a measure at least of self discipline and good sense. But what of those who are neither ? As Keats said in his famous preface to ENDYMION, the imagination of a boy is healthy, and mature imagination of a man is healthy, but there is space of life between in which the soul is informant, the character undecided, the way of life uncertain, the ambition thick-sighted. It is of those young people and their problems that Mrs. Hacker has written.

"Our successors may one day regard our failure to deal wisely with this turbulent age-group as one of the gravest blots on our civilization. Fine work is being done by thousands but the workers themselves are the first to admit how small a proportion of the youngsters they want to help come within their range. It is the old story of preaching to the converted. Yet advance is being made, and when we consider how short a time it is since the first beginning of most forms of social service, we perhaps take heart. Those like Mrs. Hackers who are spending so many devoted hours in work which often must seem unavailing may one day be looked back to with the respect due to all doughty pioneers, some day we may even read without a guilty conscience the words of the Russian Philosopher " When we see children we say here are princes. But where are the kings."

This book was published in 1957 and the reports contained therein relate to a state of things in an advanced country, England. It might perhaps afford us some comfort that our problem has not reached that intractable state but it will be cold comfort indeed as the march of history in all countries which speed towards industrialization has shown. We will soon be in such a stage if we do not propose to be alert and vigilant and take precautionary measure betimes.

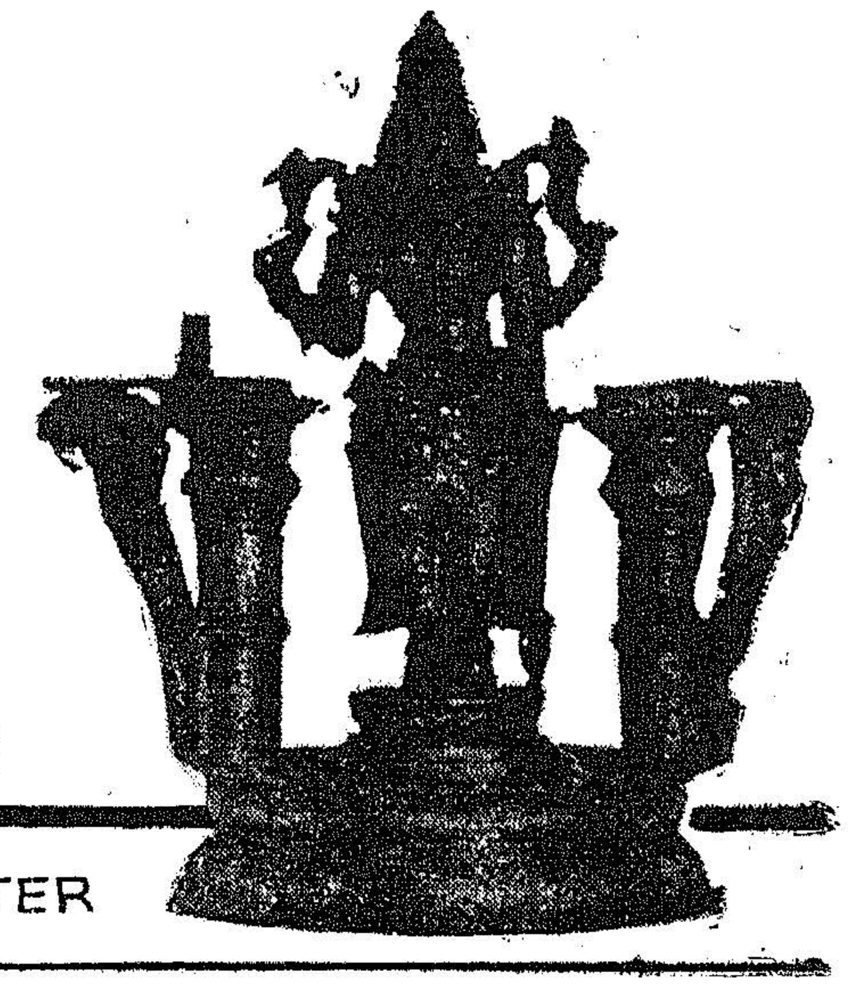
Forewarned is forearmed

The problems of teenagers in India, today, are more like what those advanced countries faced many decades ago and what is in store in the future for the less-developed peoples. As was pointed out pertinently by an eminent writer, "England and America had no precedents and had to grope in the dark", but we have their examples before us and it is up to us to benefit by their experience. We can adapt the various solutions tried by them and found effective as "prophylactic" in our country to forefend undesirable development. Here too, as in others, "Forewarned is Forearmed."

(From the Study of Leisure-time activities and needs of teen-agers and University Students sponsored by the Indian Conference of Social Work, Madras Branch.)

Sri M. Bhaktavatsalam with the party of Senior Officers in the Armed Forces and Civil Services headed by Sri J. N. Goyal from the National Defence College, New Delhi when they visited Madras recently.

Chemical Conservation Laboratory at the Government Museum



BEFORE

AFTER

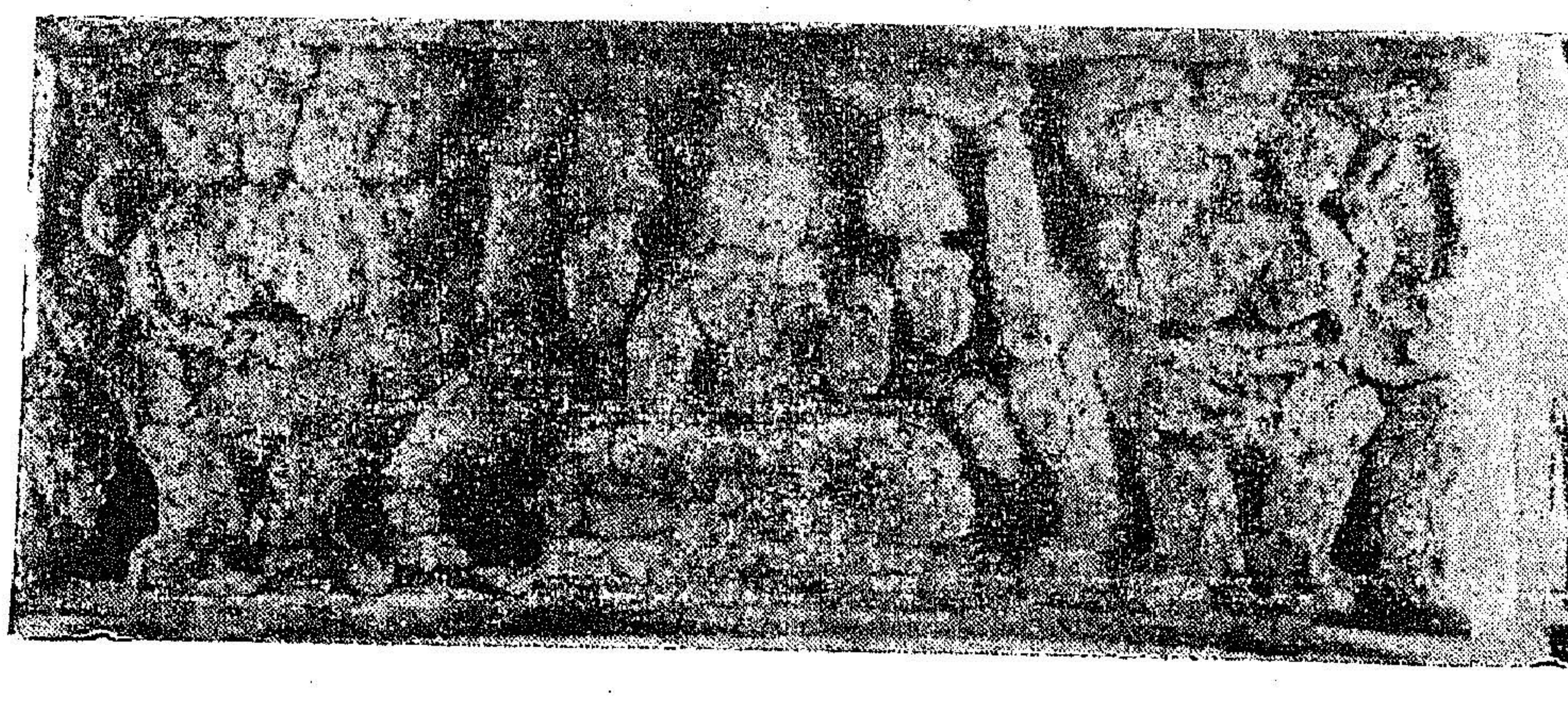
SRI N. HARINARAYANA, M.A., B. SC., (Tech.),

Curator, Chemical Conservation, Government Museum, Madras.

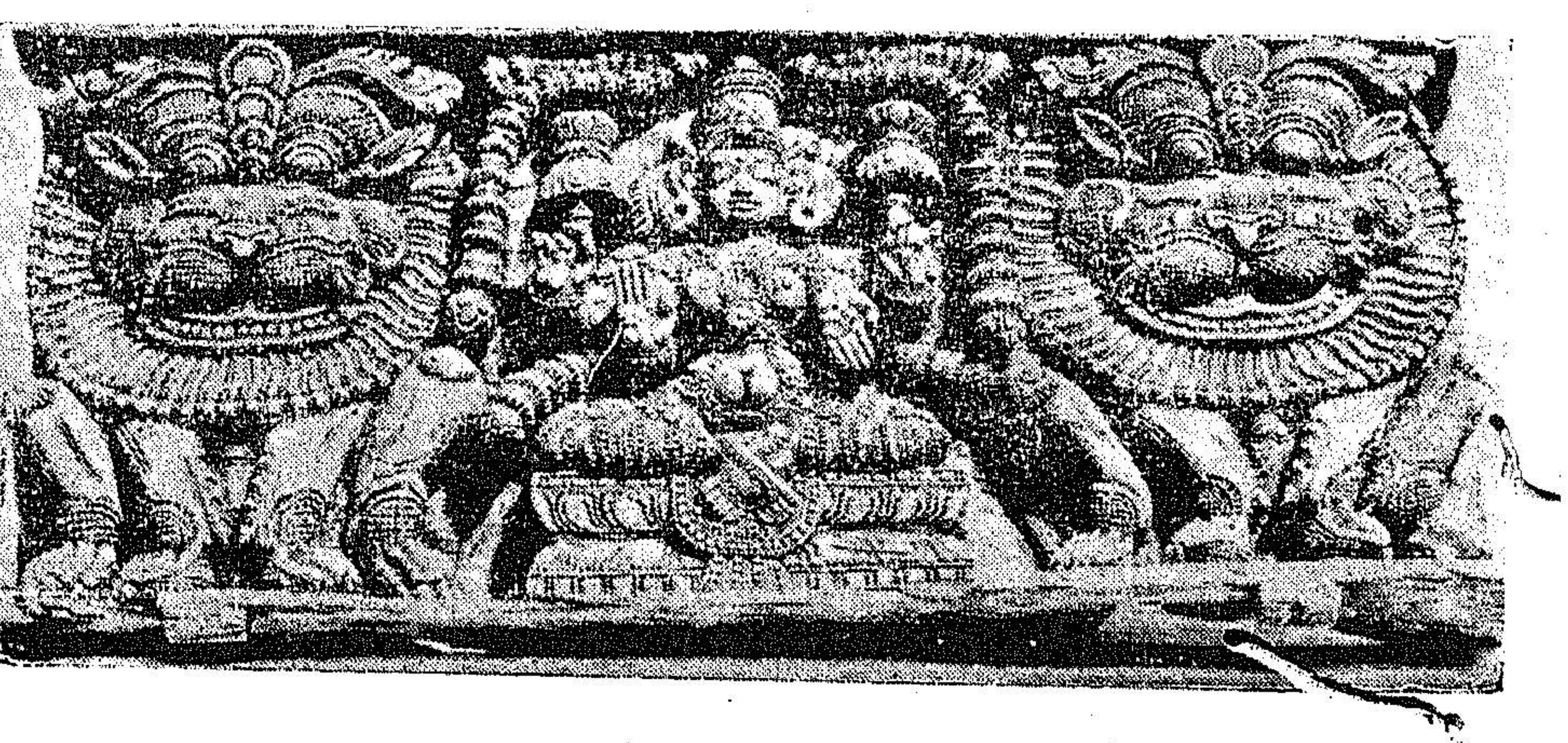
Objects which have come down to us from antiquity are precious because they are materials that recapture to us our past and tell us about it. Besides if they are artistically superb, they are all the more invaluable, and we wish to preserve them more carefully. When this caring is scientifically done, it goes by the name of Chemical Conservation.

Nearest home, in Madras we have such a Chemical Conservation Laboratory at Government Museum, Egmore, for scientific caring of our precious antiquities.

This Laboratory was organized in 1930, the Government Museum at Madras being the first Museum to organize a Laboratory of this kind in India. As far back as 1931, when few museums had Chemical Conservation Laboratories in India, this Laboratory was set up for conserving the antiquities and arts objects in the Museum. The idea for the Laboratory was first conceived by Dr. F. H. Gravely, Superintendent of the Museum, between 1920-40. He realised the danger imminent to bronzes from crosive salts which encrusted the objects and continued to eat into the metal. The collection of South Indian bronzes, renowned for their art and antiquity, is the best anywhere, and naturally it was considered wrong to let them slip into shapelessness through chemical decay. After some experimental work and much consultation, this Laboratory was set up in 1930 and Sri S. Paramasivan appointed to be in charge of it. A most elaborate equipment for the electrolytic restoration of bronzes was installed. The idea behind this treatment is to strip the bronzes of the corroding and ugly crests of salts and sandy materials by subjecting them to the action of hydrogen generated when a current is passed through a 2 per cent solution



Wood Carving Before Treatment.



Wood Carving After Treatment.

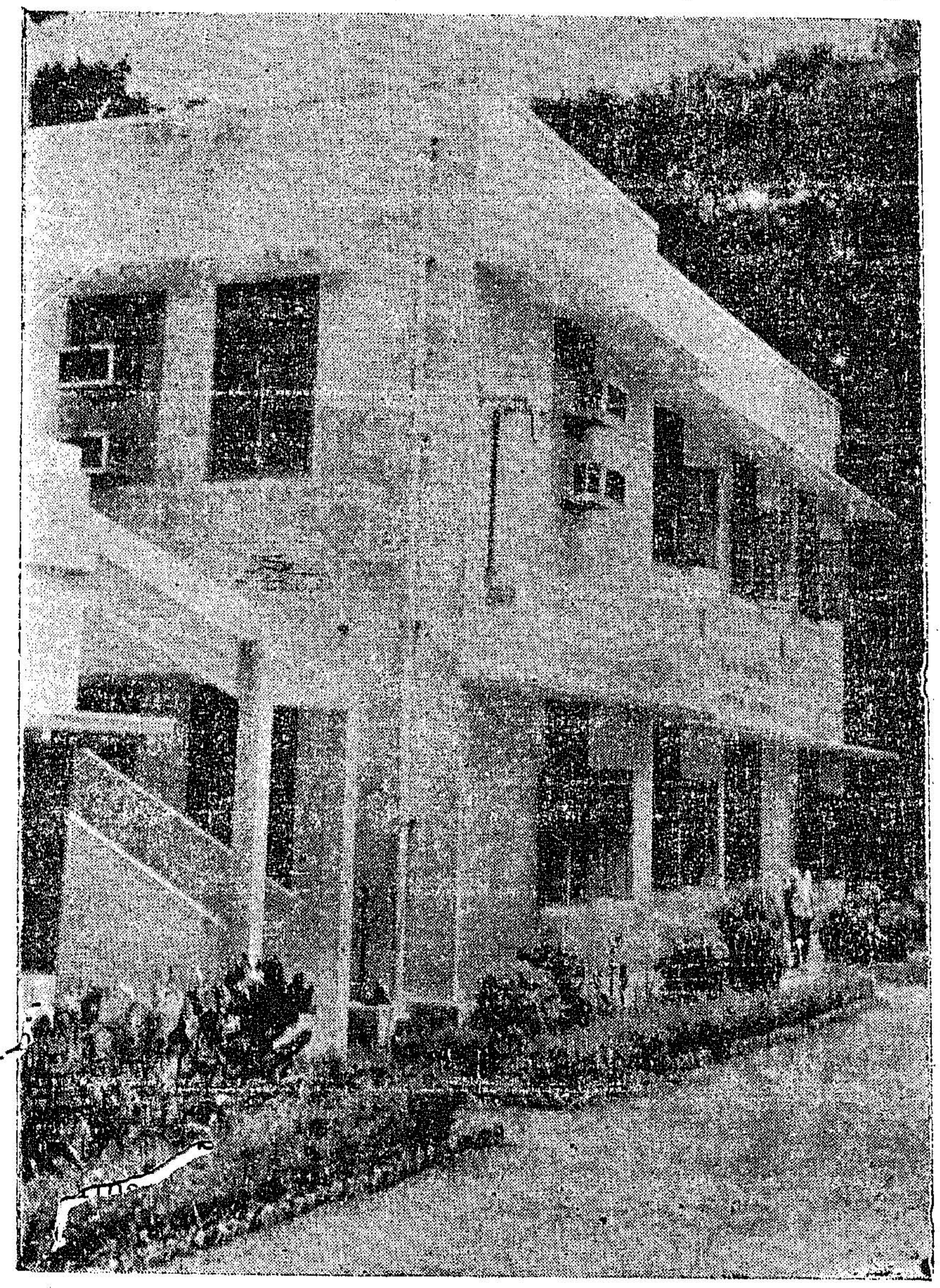
of caustic soda in water. This is a most elegant way of ridding of bronzes of ugly encrustations and revealing the artistic workmanship in them.

Objects of other materials too came to be treated. Wood carvings were cleaned of tarry deposits which defaced them. Stone objects were rid of salts which broke up their surfaces and blurred the artistic details. Leather shadow-play figures were saved from embrittling dryness by being given protective coatings. Rusted swords and other arms of iron were freed of rust and protected from further rusting.

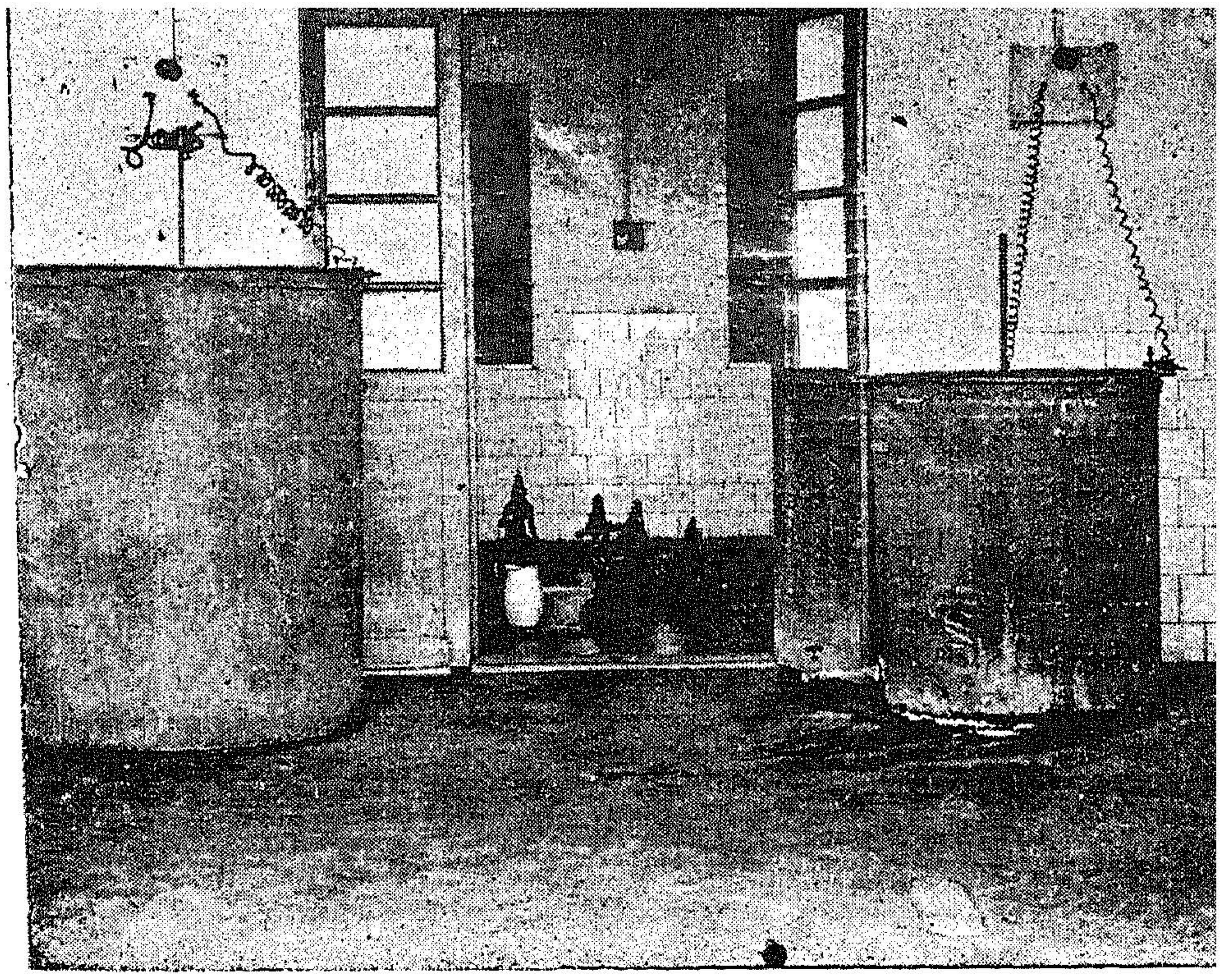
Besides the services of the chemists of the Museum were availed of for the study of the technique of Indian wall paintings as well as the treatment of such paintings, especially the famous ones at Sittannavasal. It was valuable work all the way which gives us an insight into the techniques and materials used by Indian painters of antiquity.

Expansion

The expansion of the scope of the Laboratory through the years, the expansion of the scope of chemical conservation itself to include the study of techniques



Extension to the Chemical Conservation Laboratory of the Government Museum opened in 1963.



Electrolytic Cells in the Laboratory for Restoration of Bronzes.

of artists and craftsmen in the past, the impact of developments in the other scientific field—all these made it necessary that the facilities of the Laboratory be increased to take in the larger amount and the greater range of work presenting itself as years rolled by. This expansion was realized through grants given under the Third Five-Year Plan. A new two-storeyed building was constructed in 1962. It was furnished and some more equipment obtained for the laboratory by 1963. The new building was formally thrown open on September 16, 1963, by the then Governor of Madras, Sri Bishnuram Medhi. Since then more equipment has been added and more is being obtained.

This new expansion of the Laboratory has been effected in three aspects. First, the facilities for conservation of materials have been increased. A rectifier unit has been added to strengthen the electrolytic side. A vacuum impregnation apparatus has been ordered for consolidating fragile objects of wood, bone and ivory.

The chemical analysis section of the Laboratory has been broadened. Equipment like an air oven, a water still, an air compressor, a gas plant have been added. A conductivity meter and a thermomagnetic stirrer have also been purchased. A Zeiss Spectrophotometer has been ordered and will be supplied shortly. Besides, great deal of Laboratory glass apparatus has been acquired.

Scientific examination

But it is the third aspect of this expansion that adds a new dimension to the value of the Laboratory for chemical conservation. This is the provision of facilities for scientific examination of antiquities. Towards this end an X-ray equipment has been purchased. It is the Contact and Cavity Therapy apparatus supplied

by Phillips, Limited that can be used for taking radiographs of paintings. Already the equipment has been installed and a few experimental radiographs of paintings taken successfully. Ultra-violet and Infrared ray equipment have been obtained for the study of antiquities under these radiations which bring to light numerous facts about the condition and hidden details of the objects themselves. Two Zeiss microscopes will be soon added that would help us to study the surface of the objects and learn many things about them. There is also an air-conditioned room in the Laboratory for keeping antiquities under controlled conditions of temperature and humidity during the course of their being treated chemically and restored.

All these new facilities make this Laboratory (which was long ago a well-equipped one) one of the best-equipped of its kind for looking after the well-being of antiquities and objects of art that are the very stuff of our great cultural heritage.

[The author of the above article is now working as Assistant Chemist, Salarjung Museum, Hyderabad.]

Womens' Education

That elementary education for girls should be made free even in those areas where it was still on a fee-paying basis, was one of the most important recommendations made by the National Council for Women's Education, at its seventh meeting held recently.

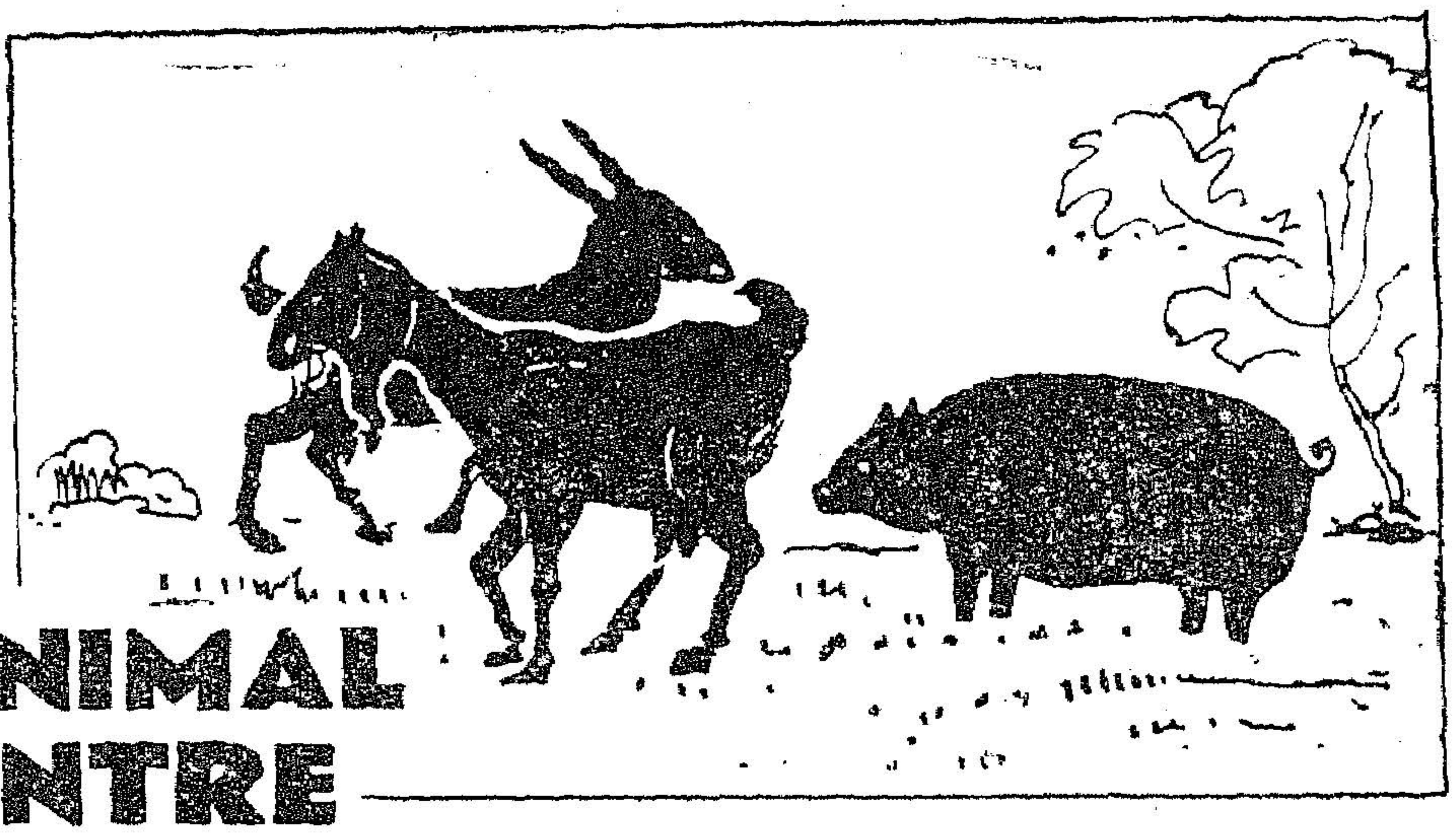
The Council recommended that steps should be taken in such areas to provide primary education on universal basis by the end of the Fourth Plan at the latest.

The Council urged upon the State Governments and the State Councils for Women's Education the need to set both financial and physical targets for education on an annual basis separately for boys and girls at the State, District and Block level for the Fourth Plan period. Separate financial allocations and physical targets should be shown for girls's education in the Primary, Middle and High School stages.

As regards part-time training and employment of women, the Council recommended more attitute surveys with particular emphasis on study of their differences in the attitude towards part-time employment vis-a-vis their educational attainment and vocational training and their attitude towards part-time employment as teachers.

It also recommended relaxation of the normal P.W.D. building standards of Central and State Governments in order to make it possible to construct inexpensive buildings for schools and hostels and teacher's quarters. Establishment polytechnics for girls by the voluntary organisations with special financial assistance from the Government of India during the Fourth Plan period.

The Council recorded its appreciation of the work done by the Bakthavatchalam Committee for its report on the causes of lack of public support, particularly in rural areas, for girls, education.



KATTUPAKKAM ANIMAL HUSBANDRY CENTRE

SRI V. A. VASUDEVARAJU, M.A.,
Lecturer, Extension Officer's Training Centre, T. Kalluppatty.

The need for expanding the production of supplementary and subsidiary foods, especially of animal origin, has been increasingly realised in recent years. With increase in population and rise in incomes the demand is likely to increase rapidly in the coming years. The prospects of augmenting the supply of protein foods of animal origin depend ultimately on progress in the development of animal husbandry.

Development of Animal Husbandry is envisaged as an integral part of a sound system of diversified agriculture. Integration of animal husbandry with farming is essential for the fuller utilisation of farm by-products, maintenance of soil fertility, fuller employment throughout the year and increase in rural incomes. Development of animal husbandry suffered serious limitations such as the large proportion of uneconomic and surplus cattle, deficient nutrition, shortage of breeding varieties, shortage of trained personnel, etc., in the First and Second Plans.

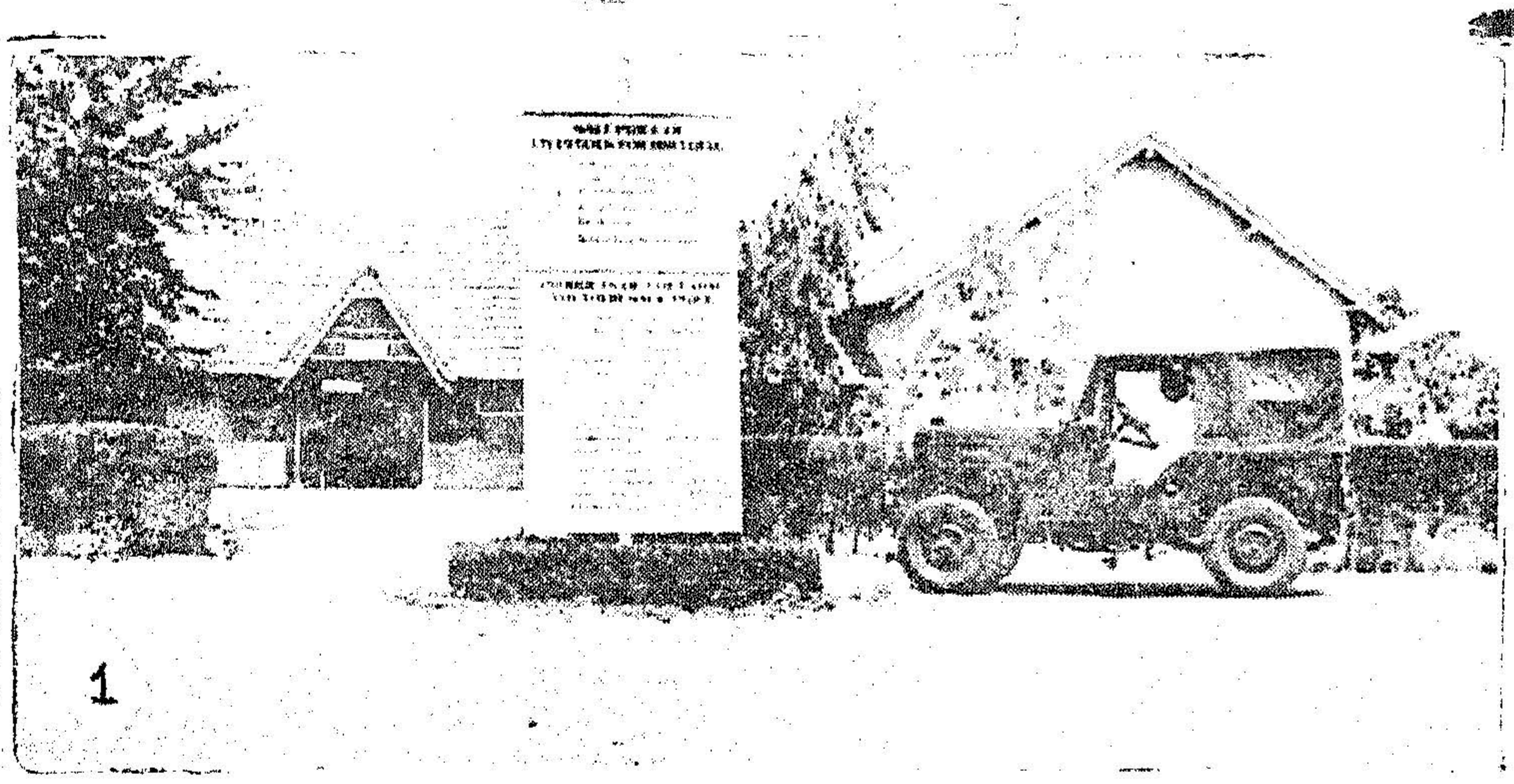
One of the main bottlenecks affecting the progress of developmental efforts in animal husbandry is the limited number of high class specimens of animals available in the country. 'Well defined breeds' are available only in limited areas. Over large parts of the country the animal wealth is 'non-descript' and do not belong to any defined breed. To improve the local stock in different parts of the country the Indian Council of Agricultural Research has drawn up the All-India Breeding Policy which has been accepted by the Central and State Governments.

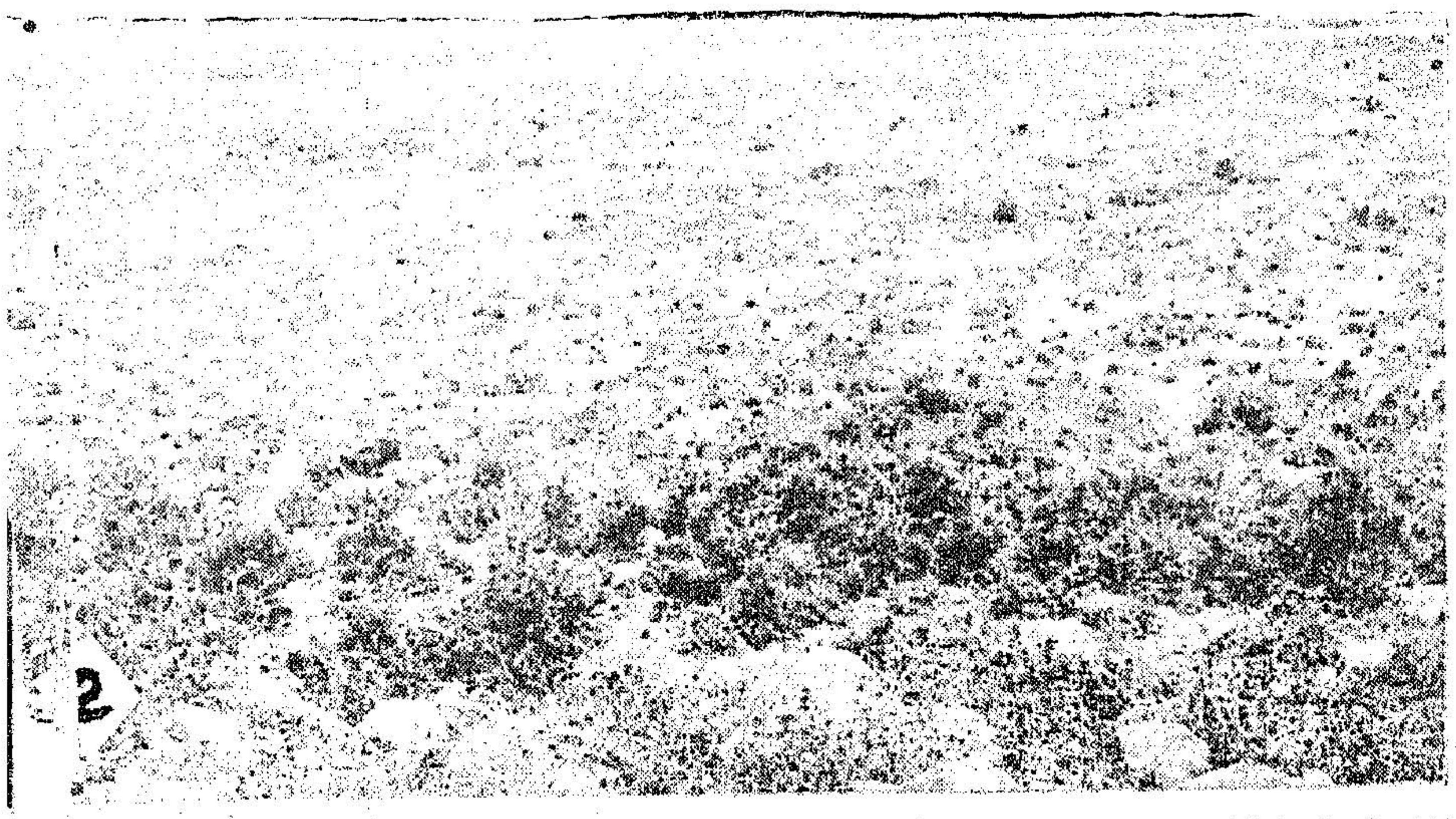
Kattupakkam Sheep Farm.

Veterinary hospitals and dispensaries, Artificial Insemination Centres, Key Village Blocks, Cattle Farms and Poultry Farms were given due importance in the first two Plans. But the starting of Sheep Farms gained much significance in the Third Plan. Fifteen Sheep Farms are sanctioned in the Third Plan for the whole country.

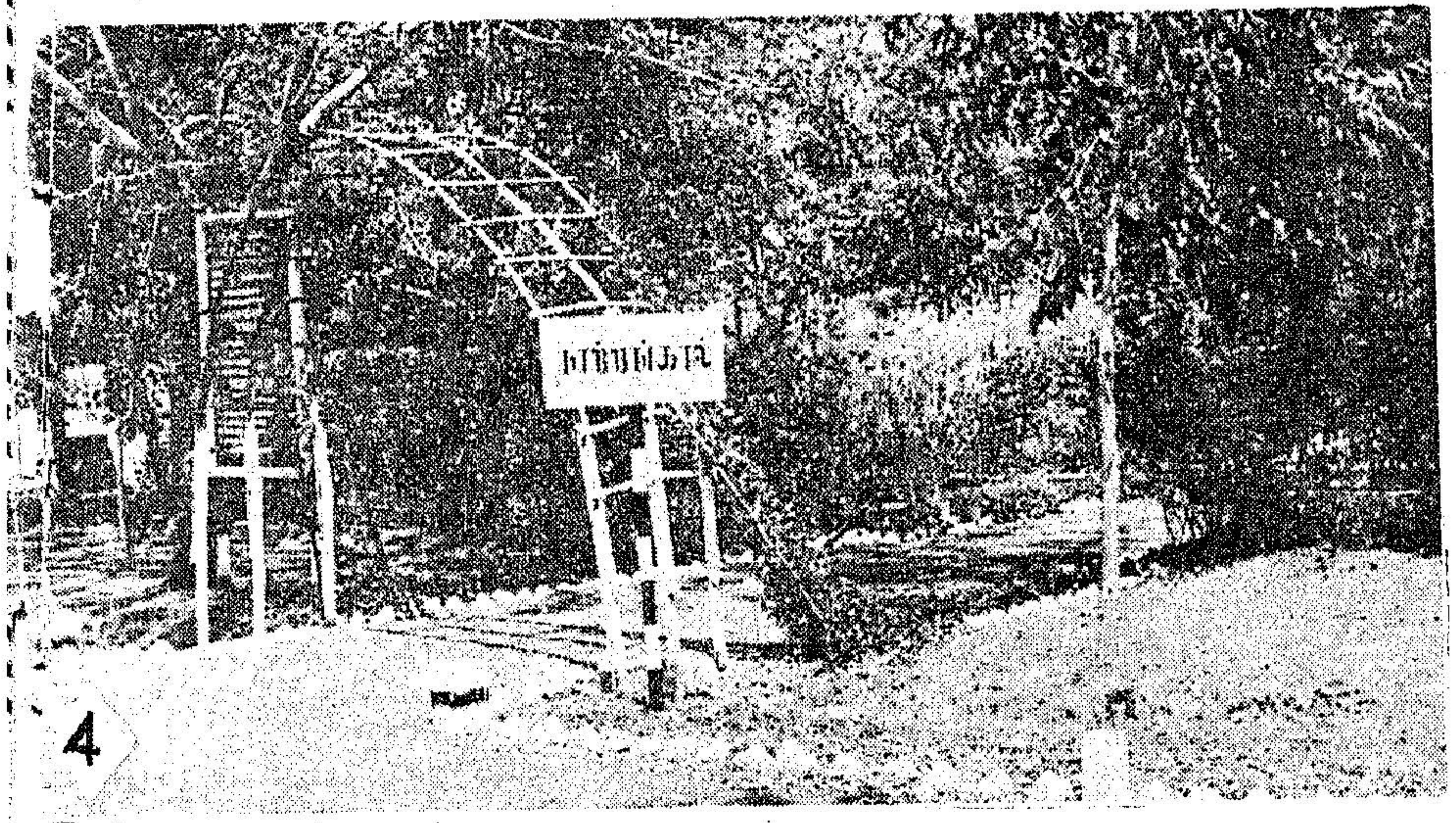
The Kattuppakkam Sheep Farm 25 miles from Madras, on the Southern Grand Trunk Road, is an emerging centre of animal husbandry which is developing as an Extension and Research Centre in the State. It is interesting to find that, what was only a reserve forest a few years ago is now being transformed into an important research centre. The Sheep Farm is situated in an area of 598·67 acres of forest area which was transferred to the Animal Husbandry Department in 1953

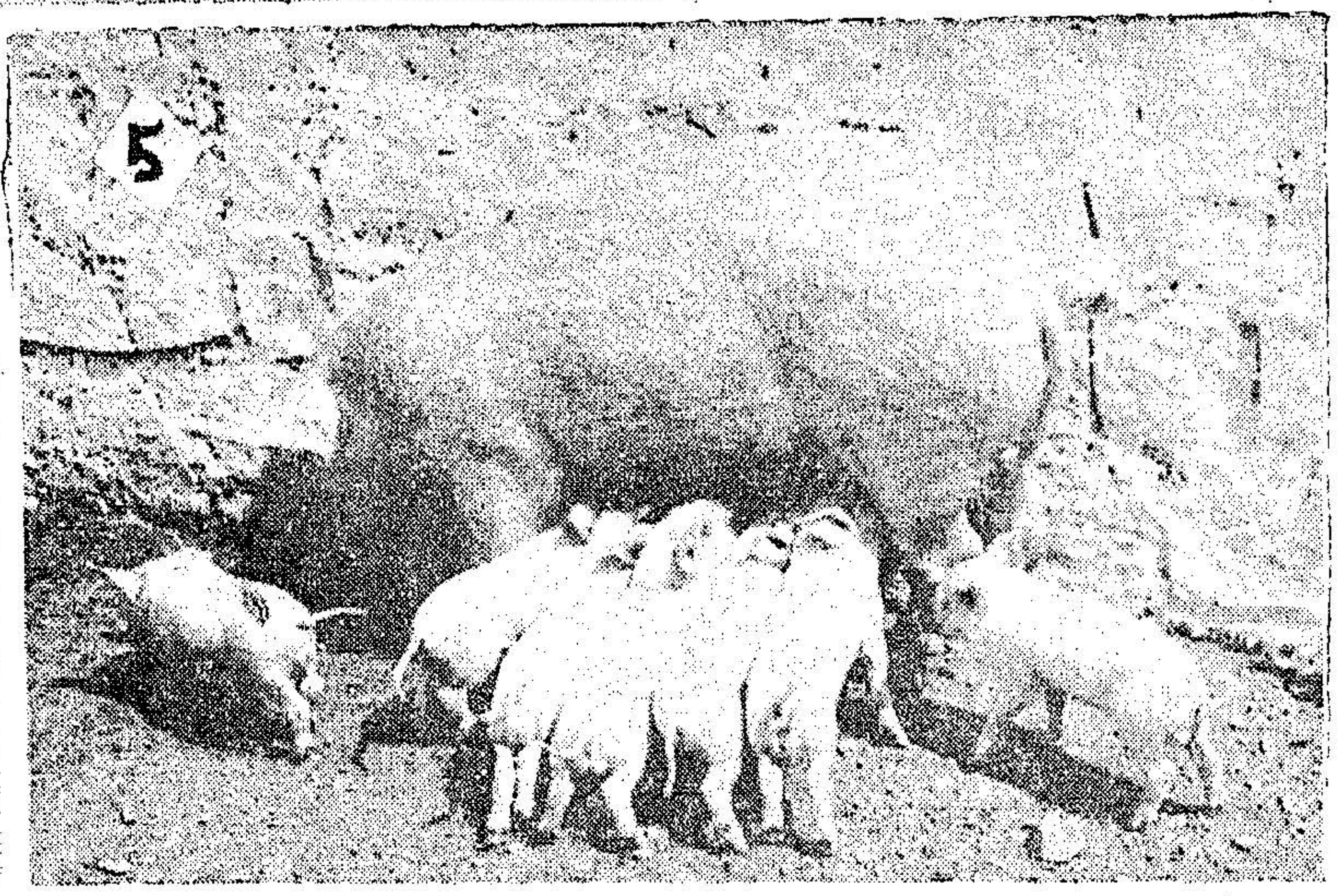
Animal Husbandry at KATTUPAKKAM

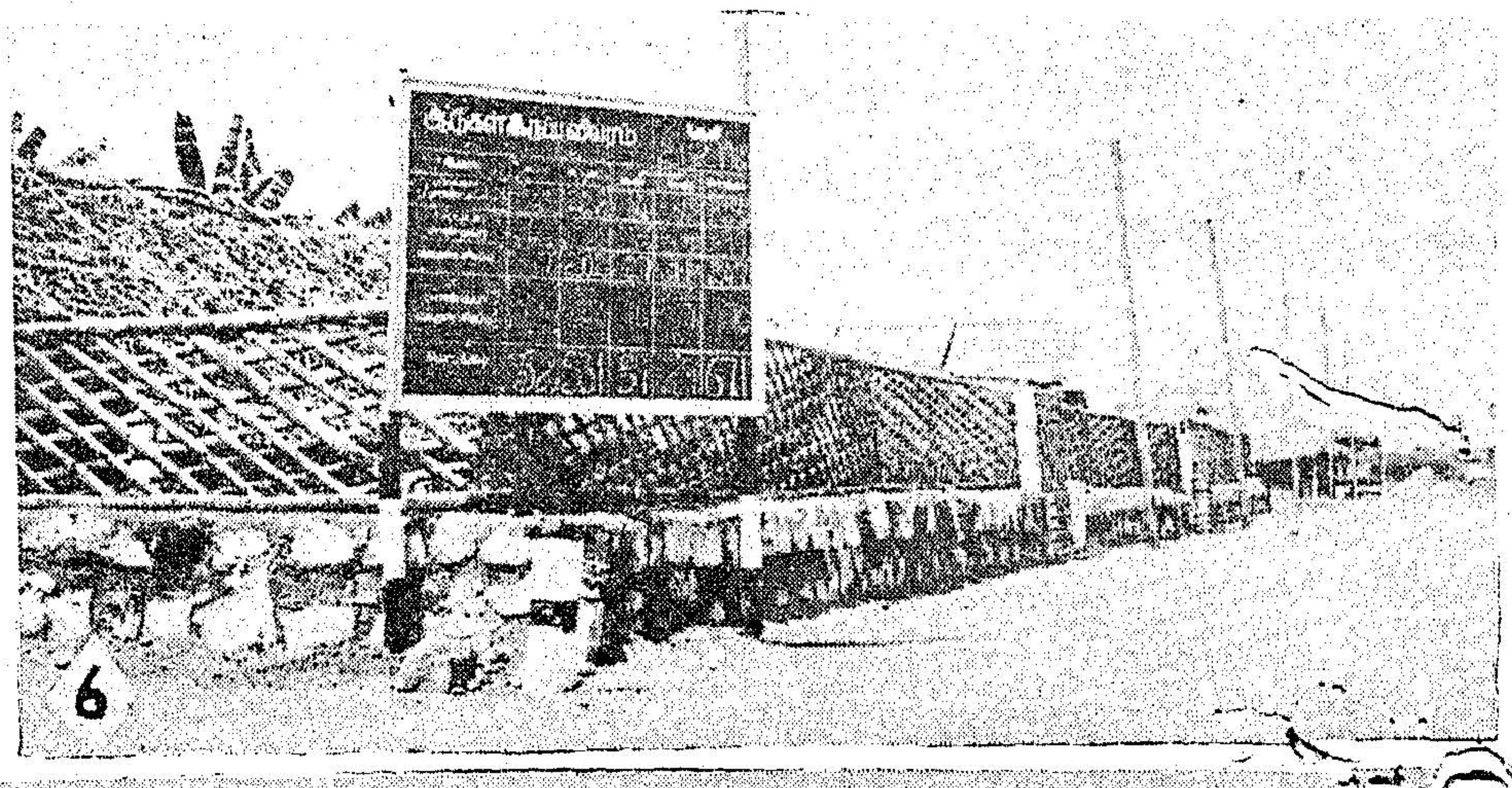




1. Entrance of the Farm.
2 & 3. Views of the farm land before and after reclamation.
4. Seedlings Section.
5. Yorkshire Sow with Piglets.
6. Flock of Mandya Sheep.
7. Sheep Sheds.







for starting the Farm. The Department can rightly feel proud of its achievements in the Farm as a result of sustained efforts in the past five years.

Objectives

The objectives of the Sheep Farm are—

(1) To study the potentiality of the Nellore type of Madras sheep for meat and skin production ;

(2) to explore the possibilities of obtaining superior hybrids by cross breeding and evolving new breeds ;

(3) to study the production capacity of Bannur (Mandya) sheep under local conditions.

Pure breeding of Madras Red breed, pure breeding of Bannur sheep, cross breeding of Madras Red with Bannur Rams, evaluation of the meat yield of Madras Red and the Cross breed of Madras Red and Bannur Rams are the technical programmes undertaken in the Sheep Farm. These programmes form part of the ICAR schemes of developing the mutton breed of sheep.

The foundation stock of 300 sheep consisting of Mandya, Mecheri and Ramnad varieties and Madras Red were introduced in the Farm in October 1958. The total stock held in the Farm was 671 at the beginning of 1965 excluding sales. The local sheep fetches only Rs. 60 per pair when sold for mutton purposes ; a single Mandya sheep commands a price of Rs. 100 in the market. The skin of Madras Red has got good value and export market. Hence, the Sheep Farm is exploring the possibilities of evolving and developing a cross breed of Mandya and Madras Red Sheep so that the farmer could be assured of a good price both for mutton and skin. It is, indeed, heartening to note that the Department is taking necessary precautionary steps in colloboration with the Central Leather Research Institute that the quality of the skin is maintained in the 'dual purpose' breed evolved in the Farm. The efforts of the Farm have taken a definite shape in respect of cross breeding and has commenced the slaughter of sheep to evaluate the mutton value to find out the results of research in this promising experiment.

The Sheep Farm is also supplying Mandya Rams and Nellore Rams to local breeders through Panchayat Unions for upgrading the local stock. All the sheep are weighed once a month and the weights are recorded. Except lambs below four months all other sheep are dosed with phenothiazine to eradicate internal parasites. They are fed with concentrates which consists of a mixture of groundnut-cake, wheat bran, crushed horse-gram, salt and mineral mixture. Each animal gets a quantity of 240 gms. per day. During mating seasons rams are fed with 226 gms. of germinated horse-gram in addition to the usual concentrates. The sheep are grazed for 6 to 8 hours a day. In the evening all sheep are fed with cut greens and lucern when available in the farm. Proper care is taken to cull the sheep of poor growth and suffering from diseases.

Pig breeding too

In addition, the Farm has also taken up pig breeding since 1960. Intensive development in this industry can make a material contribution towards raising the economic levels of several groups among the weaker sections of the community. The objective of the Farm in breeding pigs is to supply boars and sows to the Piggery Development Blocks and other interested piggery breeders in the State to grade up the local indigenous stock of pigs. A total number of 221 pigs of Yorkshire breed—famous for early maturity, efficiency in feed conversion and high quality pork production—and Yorkshire graded and Berkshire graded pigs were the stock held in the Farm at the beginning of 1965. During the period 1962–64 about 420 pigs of these varieties were sold to the breeders in Piggery Development Blocks. The boars are supplied at a nominal cost of Rs. 10 to the breeders.

Development of grazing areas and production of fodder are also given due importance in the Farm.

In March 1964 only about 33 acres of the area was under cultivation. By the end of 1964 about 160 acres of the area were reclaimed and made fit for cultivation out of which 82 acres were actually brought under cultivation. Perennial grass varieties are grown in 5 acres of land. Annual and seasonal fodder crops are grown in 12 acres and 10 acres are used for leguminous crops. Annually an average quantity of 50,000 kg. of green fodder is produced in the Farm in addition to 10,000 kg. of silage and 8,000 kg. of dry fodder. The Agricultural staff are carrying out experiments to find out the increase in yield by using the different varieties of farm yard manure and the chemical fertilisers in demonstration plots. This experiment is conducted in respect of Lucern, Pusa Giant Napier and Guinea Grass and the results are awaited.

The article on "Fisherman Co-operatives in Madras State" published in the last issue of Madras Information was written by Sri A. P. JEGARAJ, B.A. (HONS.) Deputy Registrar of Co-operative Societies (Fisheries).

The visitor is much impressed by the systematic running of the Farm. The approach to the Farm and its atmosphere are quite pleasing. Self-explanatory sign boards enable the visitor to know the work done in different sections while on round. Well laid up road in straight lines planted with revenue yielding trees on both the sides speak of the foresight with which the lay-out is planned. Commendable efforts are being made to convert more and more of the forest area into grazing lands. It provides a natural setting for the animals while grazing. The road to the small hillock is an attraction in the Farm. Standing at the top of it and comparing the southern part, where reclamation work is going on, to the northern part in its original state would make one realise the transformation that is taking place in this vast stretch of land. Availability of labour and lack of adequate supply of water are the twin problems faced by the Farm at present. With a few more wells, available for irrigation in future, the Farm would be in a position to produce more of fodder and also develop a nursery and prove to be a good example of mixed farming.

The Director of Animal Husbandry and other technical officers of the Department are taking keen interest in the development of the Farm. With the Poultry Marketing Scheme and Central Hatchery Units in its campus, the Kattuppakkam Sheep Farm is full of potentialities and it definitely occupies an important place in the Animal Husbandry map of the State. Being near to the City it enjoys all the advantages. It is becoming a popular extension centre of 'Improved Practices' in Animal Husbandry and it is sure to attract the visitors in large numbers. The benefits to the people of surrounding areas, as a result of the development of the Farm, is increasing day by day.

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